

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS**

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<b>MASSACHUSETTS INSTITUTE OF TECHNOLOGY</b>	)	
	)	
	)	
<b>Plaintiff,</b>	)	
	)	
<b>v.</b>	)	<b>Case No.: 05-10990 DPW</b>
	)	
<b>HARMAN INTERNATIONAL INDUSTRIES, INCORPORATED</b>	)	Magistrate Judge Judith G. Dein
	)	
	)	
<b>Defendant.</b>	)	
	)	

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**HARMAN'S RESPONSES TO MIT'S STATEMENTS OF FACT  
AND**

**REPLIES TO MIT'S RESPONSES TO HARMAN'S STATEMENTS OF FACT  
SUPPORTING HARMAN'S MOTION FOR SUMMARY JUDGMENT THAT  
CLAIMS 1, 42, AND 45 OF THE '685 PATENT ARE INVALID  
UNDER 35 U.S.C. § 102(B) DUE TO PUBLIC USE**

## I. GENERAL OBJECTIONS

Harman objects to MIT's responses to Harman's SOFs as non-responsive and otherwise insufficient. In an apparent attempt to cloud the simple issues presented in Harman's motion, MIT raises irrelevant issues and objects to "inferences" in order to obscure the true, undisputed nature of the facts that entitle Harman to summary judgment of invalidity under § 102(b) due to public use.

Harman further objects to MIT's inclusion of Statements of Fact that are relevant only to its purported cross-motion, and which are entirely irrelevant to Harman's Motion. *See, e.g.*, MIT's SOF Nos. 51-57, 61-77. By including such irrelevant statements in its response to Harman's motion, MIT apparently hopes to further confuse the straightforward, undisputed facts set forth in Harman's Statement of Facts.

## II. HARMAN'S RESPONSES TO MIT'S STATEMENTS

### **MIT STATEMENT NO. 1:**

U.S. Patent No. 5,177,685 ("the '685 patent"), which is assigned to MIT, was filed on August 9, 1990, and therefore, the "critical date" for purposes of 35 U.S.C. § 102(b) is August 9, 1989. Exh. 1 at cover page.

### **HARMAN'S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to Harman's motion.

Harman does not dispute that the "critical date" for purposes of this motion is August 9, 1989. MIT does not cite any evidence to support its assertion that the '685 patent is still owned by or assigned to MIT, an issue irrelevant to Harman's motion, but for which MIT bears the burden of proof.

### **MIT STATEMENT NO. 2:**

The '685 patent was based on a doctoral research project called "Back Seat Driver" conducted at MIT by James R. Davis, under the guidance of MIT research scientist Christopher Schmandt. The inventors disclosed all of their publications regarding the Back Seat Driver

research to the Patent Office, including the thesis, which was not prior art because it was not a “printed publication” before the critical date. Exh. 1 at cover page, 1:59-62; Exh. 2 at 5; Exh. 3 at 376.

**HARMAN'S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to Harman's motion.

Harman does not dispute that the '685 patent resulted, at least in part, from such doctoral research, but denies that the entirety of the patent was the result of such research. Specifically, several claims and claim limitations are directed to subject matter that was never the subject of any such research (*see, e.g.*, (Docket Entry No. 150, Exhibit 35 (filed under seal)) at 28:21-24 (Claim 5); (Docket Entry No. 133, Exhibit 14 (filed under seal) at 29:7-11 (Claim 6); Exhibit 43 at 51:6-23 (Claim 22); 73:6-10 (Claim 50); 79:1-4 (Claim 56)), that was simply provided to MIT by third-parties ((Docket Entry No. 150, Exhibit 36 (filed under seal)) at 151:19-153:20; (Docket Entry No. 150, Exhibit 21) at System (“a localization unit built by NEC”); (Docket Entry No. 150, Exhibit 32 (filed under seal)) at 93:21-94:22 (“an off-the-shelf device called DecTalk”); (Docket Entry No. 150, Exhibit 32 (filed under seal)) at 93:12-94:1), and that was well-known in the prior art as a result of the earlier work by Davis on Direction Assistance and other prior art ((Docket Entry No. 133, Exhibit 12 (filed under seal)) at 29:10-21; (Docket Entry No. 150, Exhibit 42) at 219; *see also* (Docket Entry No. 150, Exhibit 41) at ABSTRACT).

Although completely irrelevant to Harman's motion for summary judgment of invalidity due to public use, Harman disputes that MIT “disclosed all of their publications regarding the Back Seat Driver research to the Patent Office.” MIT did not disclose the Automotive Electronic News article which was published in July 1989 and contains direct quotations of Mr. Schmandt. *See* (Docket Entry No. 154, Exhibit 29); (Docket Entry No. 133, Exhibit 2) at 76-98. In addition, MIT did not provide the PTO with copies of the Direction Assistance articles which were authored by Davis in 1986-87. *See* (Docket Entry No. 154, Exhibits 22-23); (Docket Entry No. 133, Exhibit 2) at 76-98, 441. Harman also disputes that the thesis “was not prior art because it was not a ‘printed publication’ before the critical date.” The examiner initially found that Davis' thesis was, indeed, prior art and rejected the patent application as “clearly anticipated by the Ph.D. thesis of James Raymond Davis.” (Docket Entry No. 133, Exhibit 2) at 442. MIT overcame this rejection by claiming that Davis' thesis was not “available to the public” before February 27, 1990 when it was shelved in MIT's library. (Docket Entry No. 133, Exhibit 2) at 803. However, contrary to this representation, the undisputed evidence shows that the thesis was in fact available to the public before it was shelved in MIT's library. *See* Harman's Response to MIT's SOF Nos. 61-77.

**MIT STATEMENT NO. 3:**

The inventions of the '685 patent involve an automobile, and experimentation of the inventions necessarily required field trials occurring on public streets that formed part of the digitized map. Exh. 2 at 2, 149-153.

**HARMAN'S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to Harman's motion.

Harman does not dispute that the disclosure in the '685 patent involves an automobile. Harman objects to the term "inventions" to the extent that it is used to mean "patentable inventions." Harman disputes that the alleged "inventions" of the '685 patent are patentable. Indeed, the "inventions" of the '685 patent are not patentable as they are invalid under at least 35 U.S.C. § 102(b). Harman also objects to the term "experimentation" as a legal conclusion. Indeed, there can be no experimentation after reduction to practice. *See New Railhead Mfg. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1297-98 (Fed. Cir. 2002) ("experimental use, which means perfecting or completing an invention to the point of determining that it will work for its intended purpose, ends with an actual reduction to practice.")

Harman further objects to the term "necessarily" as vague. Harman denies that the invention "required field trials" in the sense that the field trials at issue in this motion consisted of undocumented, non-confidential, pre-critical date uses of the invention with at least 50 unidentified persons. *See* Harman's SOF Nos. 6-9. In addition, Harman disputes that the invention "required field trials" after the date the invention was reduced to practice, which MIT admits was in June of 1989, but before the critical date. *See* Harman's SOF Nos. 14-14, 28-33, 35-39. Nothing "required" (to use MIT's word) any field trials more than one year before the filing date of the patent, as MIT was always free to file a patent within one year of its June 1989 reduction to practice. MIT did not.

**MIT STATEMENT NO. 4:**

NEC Home Electronics ("NEC") sponsored the "Back Seat Driver" research. Exh. 4 at 1958; Exh. 2 at 4.

**HARMAN'S RESPONSE:**

Not disputed.

**MIT STATEMENT NO. 5:**

The "Back Seat Driver" research included multiple versions of research prototypes. Exh. 5 at 4-8; Exh. 6 at 1377; Exh. 7 at 112-113; Exh. 8 at 177:9-17.

**HARMAN'S RESPONSE:**

Objected to, but no genuine issue of material fact relevant to Harman's motion. This SOF is irrelevant because regardless of whether there were multiple versions, the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.*

Harman objects to the term "included multiple versions of research prototypes" as vague. Harman does not dispute that a research prototype was installed in an Acura Legend or that the prototype underwent changes over time. Harman disputes that MIT has set forth sufficient evidence to establish the existence of discreet "versions" as there is no evidence of what changes occurred when. Only one in-vehicle prototype was built, while that prototype underwent certain changes, it was not independent of what had been done before. (Docket Entry No. 154, Exhibit 16 (filed under seal)). Moreover, this prototype remained in one car. Exhibit 41 at 156:12-19 ("Back Seat Driver was a set of equipment installed in a particular car. That car used different kinds of computing. Sometimes the computing was in the car. Sometimes it was out of the car, ***but there was only ever one car that was associated with the term Back Seat Driver.***" (emphasis added))

Harman further disputes the existence of discreet versions, as the only evidence cited by MIT that describes the specific content of supposedly discreet versions is a research proposal dated June **1988**, nearly a year before the 50 uses in questions here, and which obviously does not purport to document what changes actually occurred when. Indeed, MIT has cited no other evidence to delineate the meets and bounds of any specific version at any specific time. Harman further objects to the phrase "final weeks of the project" as vague, but notes that this likely refers to May and June of 1989. Regardless, the undisputed facts show that by at least June 1989 the "research prototype" in use by the inventors met every limitation of Claims 1, 42 and 45. *See Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39; see also MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) ("Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed ***and direction sensors.*** To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]... The Back Seat Driver is already working in prototype form." (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at "System Overview" (dated June 1989) ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].")*

**MIT STATEMENT NO. 6:**

Although all of the research prototypes were referred to as “Back Seat Driver,” including in papers published by Davis and/or Schmandt and correspondence between the inventors and NEC, not all of the research prototypes embodied the claims of the ‘685 patent. Exh. 7 at 111-113; Exh. 5 at 4-8.

**HARMAN’S RESPONSE:**

Disputed in part and objected to, but no genuine issue of material fact relevant to Harman’s motion. This SOF is irrelevant because, regardless of whether there were multiple versions, the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* ’685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

Harman objects to the phrase “embodied the claims of the ’685 patent” as vague as MIT does not disclose which claims it is referring to. Several claims and claim limitations are directed to subject matter that was never the subject of any such research (*see, e.g.*, (Docket Entry No. 150, Exhibit 35 (filed under seal)) at 28:21-24 (Claim 5); (Docket Entry No. 133, Exhibit 14 (filed under seal) at 29:7-11 (Claim 6); Exhibit 43 at 51:6-23 (Claim 22); 73:6-10 (Claim 50); 79:1-4 (Claim 56))), that was simply provided to MIT by third-parties ((Docket Entry No. 150, Exhibit 36 (filed under seal)) at 151:19-153:20; (Docket Entry No. 133, Exhibit 21) at System (“a localization unit built by NEC”); (Docket Entry No. 150, Exhibit 32 (filed under seal)) at 93:21-94:22 (“an off-the-shelf device called DecTalk”); (Docket Entry No. 150, Exhibit 32 (filed under seal)) at 93:12-94:1), and that was well-known in the prior art as a result of the earlier work by Davis on Direction Assistance and other prior art ((Docket Entry No. 133, Exhibit 12 (filed under seal)) at 29:10-21; (Docket Entry No. 150, Exhibit 42) at 219; *see also* (Docket Entry No. 150, Exhibit 41) at ABSTRACT).

Harman further objects to the relevance of any claims other than Claims 1, 42, and 45 which are asserted in this motion, and MIT’s SOF clearly does not limit itself to these three claims. The undisputed facts show that by at least June 1989 the “research prototype” in use by the inventors met every limitation of Claims 1, 42, and 45. *See* Harman’s SOF Nos. 14-15, 28-33, 35-39; *see also* MIT 1101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) (“Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed **and direction sensors**. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]. The Back Seat Driver is already working in prototype form” (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at “System Overview” (dated June 1989) (“The location system (supplied by the project sponsor, NEC) determines the current position of

the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].") Moreover, MIT admits that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See Harman's SOF Nos. 14-15, 28-33, 35-39; see also Nat'l. Steel Car, Ltd. v. Canadian Pacific*, 357 F.3d 1319, 1334 (Fed. Cir. 2004) (*citing Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed.Cir.2001); *Ortho Pharm. Corp. v. Smith*, 959 F.2d 936, 942 (Fed.Cir.1992) ("A validity analysis must be conducted on a claim-by-claim basis."))

#### **MIT STATEMENT NO. 7:**

"Version 0" of the "Back Seat Driver" was a computer simulation. Exh. 6 at 1377. "Version 1" of the "Back Seat Driver" and "Version 2" of the "Back Seat Driver" both featured a "person in the back...[to] provide position information by entering data silently on a laptop computer." *Id.*

#### **HARMAN'S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to Harman's motion.

Exh. 6 at 1377 (Docket Entry 160) is the only evidence cited by MIT here to describe the specific content of supposedly discreet versions. This document is a research proposal dated June **1988**, nearly a year before the 50 uses in questions here, and which obviously does not purport to document what changes actually occurred when. Indeed, MIT has cited no other evidence to delineate the meets and bounds of any specific version at any specific time. *See* Harman's Response to MIT Statement of Fact Nos. 5-6, incorporated herein by reference.

#### **MIT STATEMENT NO. 8:**

The inventors noted that "[a]ll these versions, especially 1 and 2, will evolve through testing and change as they are evaluated." Exh. 6 at 1377.

#### **HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

Exh. 6 at 1377 (Docket Entry 160) is the only evidence cited by MIT here to describe the specific content of supposedly discreet versions. This document is a research proposal dated June **1988**, nearly a year before the 50 uses in questions here, and which obviously does not purport to document what changes actually occurred when. Indeed, MIT has cited no other evidence to delineate the meets and bounds of any specific version at any specific time. *See* Harman's Response to MIT's SOF Nos. 5-6, incorporated herein by reference.

**MIT STATEMENT NO. 9:**

“Version 3” of the “Back Seat Driver” was to “include onboard position sensing hardware, removing the requirement for a human substitute.” Exh. 6 at 1377.

**HARMAN’S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to Harman’s motion.

Exh. 6 at 1377 (Docket Entry 160) is the only evidence cited by MIT here to describe the specific content of supposedly discreet versions. This document is a research proposal dated June **1988**, nearly a year before the 50 uses in questions here, and which obviously does not purport to document what changes actually occurred when. Indeed, MIT has cited no other evidence to delineate the meets and bounds of any specific version at any specific time. *See* Harman’s Response to MIT Statement of Fact Nos. 5-6, incorporated herein by reference.

**MIT STATEMENT NO. 10:**

In a report dated April 30, 1989, the inventors reported that the concept of the Back Seat Driver seemed to be working well as tested in “Version 2.” Exh. 7 at 111.

**HARMAN’S RESPONSE:**

Objected to and Disputed in part, but no genuine issue of material fact relevant to Harman’s motion.

Harman does not dispute that the April 1989 quarterly report states that “Version 2 of the Back Seat Driver is working,” but this is irrelevant because regardless of whether there were multiple versions, the undisputed (indeed, admitted) evidence establishes that Claims 1, 42 and 45 were reduced to practice by at least June 1989 and embodied in uses that occurred during June and July 1989, after reduction to practice, but before the critical date. *See* '685 Patent at Claims 1, 42 and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39; *see also* Harman’s Response to MIT’s SOF Nos. 5-6, incorporated herein by reference.

**MIT STATEMENT NO. 11:**

Version 2 of the Back Seat Driver discussed in the April 30, 1989 letter did not embody the claimed inventions. In Version 2, “the NEC speed sensor provide[d] a count of odometer rotation to a laptop computer. A human operator provide[d] direction information by entering directions of turns as single keystrokes on the laptop. The laptop then transmit[ted] distance and direction traveled via cellular modem to [a] workstation computer.” Exh. 7 at 111.

**HARMAN'S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to Harman's motion. *See* Harman's Response to MIT's SOF Nos. 5-6, incorporated herein by reference.

Harman objects to the term "claimed inventions" as vague and further objects to the relevance of any claims other than Claims 1, 42, and 45 which are asserted in this motion, and MIT's SOF clearly does not limit itself to these three claims. The undisputed facts show that by at least June 1989 the "research prototype" in use by the inventors met every limitation of Claims 1, 42 and 45. *See* Harman's SOF Nos. 14-15, 28-33, 35-39; *see also* MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) ("Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed *and direction sensors*. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]... The Back Seat Driver is already working in prototype form." (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at "System Overview" (dated June 1989) ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].") Moreover, MIT admits that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* Harman's SOF Nos. 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 12:**

Version 2 of the Back Seat Driver involved communications problems between the equipment in the car and the equipment in the Media Lab. Exh. 7 at 111. The communications problems were two-fold: 1) "noise in the [data] channel" and 2) "the modem...dropping the connection after only a few minutes." *Id.*

**HARMAN'S RESPONSE:**

Disputed in part and otherwise Irrelevant, but no genuine issue of material fact relevant to Harman's motion. *See* Harman's Response to MIT's SOF Nos. 5-6, incorporated herein by reference.

Harman does not dispute that this problem existed at some point prior to June 1989 (Exh. 7 which MIT relies on is dated April 30, 1989), and that the inventors took steps to remedy it. However, whether the inventors were testing the cellular communications capabilities is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 13:**

The inventors attempted to solve the first problem by using a “cellular modem manufactured by Spectrum Cellular Corporation...[which] eliminated almost all noise in the data channel, but [was] only somewhat better at tolerating loss of carrier than the landline modem.” Exh. 7 at 111.

**HARMAN’S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman’s motion.

Harman does not dispute that this problem existed prior to June 1989, and that the inventors took steps to remedy it. However, whether the inventors were testing the cellular communications capabilities prior to the admitted reduction to practice date of at least June 1989 (Exh. 7 which MIT relies on is dated April 30, 1989), is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. See ’685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 14:**

The inventors advised NEC that Version 2 was not commercially exploitable because of the human operator and the lack of reliability of the system due to the loss of cellular signal. Exh. 7 at 111-113:

[W]e still have difficulties when the human gets confused and provides false information to the workstation...we think the next step is to move the implementation from the workstation computer to a computer installed in the trunk of the car. Doing so would remove our dependence on cellular phones, making the system more reliable, cheaper, and a much more convincing ‘concept car’.

**HARMAN’S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to Harman’s motion. *See* Harman’s Response to MIT’s SOF Nos. 5-6, incorporated herein by reference.

Harman disputes that MIT “advised NEC that Version 2 was not commercially exploitable,” and MIT cites no evidence to support this assertion. At best, the April 1989 quarterly report, written before MIT reduced to practice claims 1, 42 and 45 at least as early as June 1989, shows MIT stated that eliminating reliance on cellular phones would make the system [[REDACTED]] *See* (Docket Entry No. 154, Exhibit 4 (filed under seal)) at RITTMUELLER 111-113. Tellingly, in the very report MIT cites, the inventors note that after changing to a different brand of cell phone the [[REDACTED]] *See*

(Docket Entry No. 154, Exhibit 4 (filed under seal)) at RITTMUELLER 111. Regardless, whether the Back Seat Driver was “commercially exploitable” is irrelevant, as commercial development is unrelated to ready for patenting/reduction to practice, and is not a basis for claiming the uses were for experimentation. *See Netscape Commc’ns Corp. v. Konrad*, 295 F.3d 1315, 1322 (Fed. Cir. 2002) (affirming the district court’s holding that an inventor’s demonstration of a prototype was invalidating public use because “[the inventor’s] demonstration was geared more toward making the remote database object more commercially attractive, with endorsements from outside technical people, than for experimental use purposes. The experimental use negation is unavailable to a patentee when the evidence presented does not establish that he was conducting a bona fide experiment.”)

#### **MIT STATEMENT NO. 15:**

The “loss of carrier problem” continued until at least the completion of Dr. Davis’ Ph.D. thesis. In a report dated July 31, 1989, the inventors advised NEC that,

[i]n the previous quarter, we began using the Spectrum Cellular modem, which provides a clean data transmission channel. At that time, we still had problems with loss of carrier. This remains a problem. We still find that calls are sometimes dropped. We have found this to be about as bad with voice calls as with data calls, so we attribute it to the cellular system as a whole, not to the modem or cellular phone. We do not expect any solution to this problem.

Exh. 9 at 175.

#### **HARMAN’S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman’s motion.

Harman does not dispute that this issue may have existed prior to the admitted reduction to practice of Claims 1, 42 and 45 at least as early as June 1989. However, whether the inventors were testing the cellular communications capabilities is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* ’685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39; *see also* Harman’s Response to MIT’s SOF Nos. 5-6, incorporated herein by reference. Regardless, by at least April 1989 MIT had improved the issue by switching to a different brand of cell phone the result being that the [[REDACTED]] *See* (Docket Entry No. 154, Exhibit 4 (filed under seal)) at RITTMUELLER 111.

**MIT STATEMENT NO. 16:**

“Version 3” was not implemented until after the critical date. Exh. 10 at 14:12-21; Exh. 11 at 80:14-21.

**HARMAN’S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to Harman’s motion. *See* Harman’s Response to MIT’s SOF Nos. 5-6, incorporated herein by reference.

The undisputed facts show that by at least June 1989 the “research prototype” in use by the inventors met every limitation of Claims 1, 42 and 45. *See* Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39; *see also* MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) (“Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed **and direction sensors**. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]... The Back Seat Driver is already working in prototype form.” (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at “System Overview” (dated June 1989) (“The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].”) Moreover, MIT admits that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* ’685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

Moreover, both the Davis’ testimony (Exh. 10 at 14:12-21) and Schmandt’s 30(b)(6) testimony (Exh. 11 at 80:14-21) which MIT cite to support this fact deal with when the computer was moved from the Media Lab and put in the car, thus eliminating the use of cell phones. This is not a claimed feature of (and is irrelevant to) Claims 1, 42, and 45, which are addressed in this motion.

**MIT STATEMENT NO. 17:**

During spring of 1989, Davis and Schmandt hired an undergraduate student, Gregory Grove, to work on the specific problem of loss of carrier signal between the car and the workstation. Exh. 12 at 709860:

I will be in the car monitoring the carrier status and operating the positioning system. When the carrier is lost, I will log time, location, and conditions surrounding the loss of carrier. I will investigate why the carrier was lost...Firm establishment of cellular phone/modem communication would benefit the project by making it a much more viable system.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion. *See* Harman's Response to MIT's SOF Nos. 5-6, incorporated herein by reference.

Harman does not dispute that Mr. Grove was a UROP student working on the Back Seat Driver Project. Harman also does not dispute that Mr. Grove's work on the Back Seat Driver project covered the subject matter found in his proposal and final paper. *See* (Docket Entry No. 160, Exhibits 12 & 13). Harman disputes that Mr. Grove had a "specific" task as his involvement appears to have included not only monitoring carrier loss, but also operating the positioning system and at times entering commands into the Lisp system. *See* (Docket Entry No. 160, Exhibit 12); (Docket Entry No. 160, Exhibit 13) at HAR 709877.

In any event, what Mr. Grove did in the Spring of 1989 is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 18:**

Mr. Grove failed to solve the data communication problem by the time he submitted his "UROP Final Paper" to Schmandt on May 20, 1989. Exh. 13 at 709862, 709877 ("I could do little more than calculate the probabilities for loss of carrier").

**HARMAN'S RESPONSE:**

Irrelevant and Objected to, but no genuine issue of material fact relevant to Harman's motion. *See* Harman's Response to MIT's SOF Nos. 5-6, incorporated herein by reference.

Harman does not dispute that the carrier loss "problem" was not solved by Mr. Grove. Harman objects to the implication that "Mr. Grove failed" as it appears the root of the problem was that there "really wasn't enough data to do anything with." (Docket Entry No. 160, Exhibit 13) at 709877.

In any event, what Mr. Grove did in the Spring of 1989 is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 19:**

Neither Harman nor Mr. Grove produced any documents showing that Mr. Grove was allowed to drive the Back Seat Driver automobile during any field trial of any version of the Back Seat Driver, even though he worked on the project.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

Whether Mr. Grove drove the prototype is not relevant, as at least 50 other unidentified persons, including General Motors employees, did, in fact, use the prototype, including uses after the invention was already reduced to practice in June 1989 but before the critical date. *See* Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

In any event, what Mr. Grove did in the Spring of 1989 is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39. Mr. Grove's final paper for this project is dated May 20, 1989, therefore his involvement with the project presumably took place before that time. *See* (Docket Entry No. 160, Exhibit 13) at HAR 709862.

**MIT STATEMENT NO. 20:**

Neither Harman nor Mr. Grove has produced an affidavit or other evidence to authenticate any of the documents produced by Harman from Mr. Grove's files.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

In any event, what Mr. Grove did in the Spring of 1989 and the associated documents that MIT cites here, are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39. Mr. Grove's final paper for this project is dated May 20, 1989, therefore his involvement with the project presumably took place before that time. *See* (Docket Entry No. 160, Exhibit 13) at HAR 709862.

MIT itself has authenticated these documents in light of Davis' admission that he created the thesis defense document, Davis and Schmandt's further authentication of that

document as a draft flyer created at a time when Davis thought he would defend his thesis in May 1989 in their sworn declarations, and MIT's use of the other Grove UROP documents as evidence in MIT SOF Nos. 17-19. *See* MIT SOF Nos. 17-19; (Docket Entry No. 160, Exhibit 24) at ¶ 7; (Docket Entry No. 160, Exhibit 21) at ¶ 6; *see also* FED. R. EVID. 801(d)(2)(A)(statement of a party opponent).

**MIT STATEMENT NO. 21:**

Harman has represented that it will not be calling Mr. Grove at trial.

**HARMAN'S RESPONSE:**

Not disputed. There is no genuine dispute as to the authenticity and admissibility of these documents, and there is no need for Harman to call Mr. Grove at trial. To the extent the Court feels otherwise, Harman reserves the right to submit declarations establishing the authenticity and admissibility of these documents for use at trial.

**MIT STATEMENT NO. 22:**

Davis continued testing the strength and durability of the voice and data communication channels during the Summer of 1989 and into 1990, and he maintained records of the performance of the communication channels during this durability testing. Exh. 14 at 4390-95; Exh. 2 at 149-153.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The inventors' testing of the cellular communications capabilities is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 23:**

In Version 2 of the Back Seat Driver prototype, the inventors noticed a problem with delay in data packets arriving from the automobile at the workstation computer. The data packets would subsequently arrive after the automobile had moved, decreasing the reliability of Version 2. Exh 9 at 175 ("if there is difficulty transmitting a packet, all successive packets are also delayed until the first one is transmitted. For ordinary data, this is a desirable feature, but for real time data such as positions this is not desirable.").

**HARMAN'S RESPONSE:**

Objected to and Irrelevant, but no genuine issue of material fact relevant to Harman's motion. *See* Harman's Response to MIT's SOF Nos. 5-6, incorporated herein by reference.

Regardless, the inventors' testing of the cellular communications capabilities is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 24:**

The loss of carrier and delay problems were not completely solved until after the critical date when the computer was on-board the vehicle. Exh. 8 at 161:15-23; Exh. 10 at 14:12-21:

Q: Do you recall what you did in terms of development of "The Back Seat Driver" from September of 1989 to September of 1990?

A: Yes.

Q: What did you do?

A: Among other things, we built another prototype of the system where the computer was installed in the car instead of using the cellular telephone apparatus to communicate to a computer that remains stationary.

Exh. 11 at 80:14-21:

A. Okay. So when you asked me about [claims] 57 and 58 [relating to cellular telephone embodiment], I believe that I said that all versions of the Back Seat Driver had those elements in them. What the correct thing to say is, all versions of those as of up to and including August of 1989, had those features. Subsequent versions did not necessarily have those features.

Q: Thank you.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The inventors' testing of the cellular communications capabilities is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 25:**

The inventors did not receive the "NEC Vehicle Navigation System for positioning information" that was required for Version 3 of the Back Seat Driver prototype until "the final weeks of the project." Even after they received it, the inventors "found several difficulties with the design and operation of the [NEC Vehicle] Navigation System." Exh. 6 at 1377; Exh. 9 at 176.

**HARMAN'S RESPONSE:**

Objected to and Disputed, but no genuine issue of material fact relevant to Harman's motion. *See* Harman's Response to MIT's SOF Nos. 5-6, incorporated herein by reference.

Harman further objects to the phrase "final weeks of the project" as vague, but notes that this likely refers to May and June of 1989. Regardless, the undisputed facts show that by at least June 1989 the "research prototype" in use by the inventors met every limitation of Claims 1, 42 and 45. *See* Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39; *see also* MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) ("Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed *and direction sensors*. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]... The Back Seat Driver is already working in prototype form.") (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at "System Overview" (dated June 1989) ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].")

In any event, the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 26:**

Any field trials of the Back Seat Driver that occurred prior to the Final Report dated July 31, 1989, would not have been field trials of the claimed invention. Exh. 9 at 176.

**HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to Harman's motion.

The undisputed facts show that by at least June 1989 the "research prototype" in use by the inventors met every limitation of Claims 1, 42 and 45 and that MIT continues to subsequently use it in public through July 1989. *See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39; see also MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989)* ("Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed *and direction sensors*. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper].... The Back Seat Driver is already working in prototype form." (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at "System Overview" (dated June 1989) ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].")

In any event, the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.*

**MIT STATEMENT NO. 27:**

Some pieces of equipment used in the field trials of prototypes of the Back Seat Driver were installed in an 1988 Acura Legend automobile. Exh. 15 at 1966. These pieces of equipment included, at most, the "driver input means," the "position sensor," and the "voice apparatus." Exh. 16 at ¶¶ 118-120; Exh. 17 at 6763; Exh. 18 at 6765; Exh. 2 at 149-153; Exh. 19 at 710321:

Two cellular telephones link a based computer to the car. The Back Seat Driver transmits the car's position and speed back to the [Media L]ab's computer via modem and telephone ... Synthesized instructions are relayed to the driver through the second cellular telephone, which is a speakerphone. The keypad of that phone also serves as the driver's control unit for the system, allowing him to select a destination and request a repeat of previous instructions.

**HARMAN'S RESPONSE:**

Objected to and Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The location of the "rest of the equipment" being at the MIT Media Lab, if true, would be irrelevant, as the location of the "use" of a system that includes components located in multiple locations is deemed, as a matter of law, to take place at the location in which the benefit of the system occurs (here, on the public streets of Boston). *See NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1317 (Fed. Cir. 2005) ("The use of a claimed system under section 271(a) is the place at which the system as a whole is put into service, i.e., the place where control of the system is exercised and beneficial use of the system obtained.") Accordingly, the system was being used in public, even if one or more components were located at the Media Lab.

In addition, Harman objects to consideration of MIT's Exh. 16 (Docket Entry No. 160) as it is nothing more than MIT's own expert's report (which is inadmissible hearsay and unavailable for use by MIT). Moreover, MIT's expert does not have personal knowledge of the facts, and as such her opinions are inadmissible evidence.

**MIT STATEMENT NO. 28:**

The rest of the equipment used for the field trials of prototypes was located at the MIT Media Lab. Exh. 16 at ¶¶ 118, 120; Exh. 7 at 111; Exh. 19 at 710321; Exh. 2 at 149-153.

**HARMAN'S RESPONSE:**

Objected to and Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The location of the "rest of the equipment" being at the MIT Media Lab, if true, would be irrelevant, as the location of the "use" of a system that includes components located in multiple locations is deemed, as a matter of law, to take place at the location in which the benefit of the system occurs (here, on the public streets of Boston). *See NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1317 (Fed. Cir. 2005) ("The use of a claimed system under section 271(a) is the place at which the system as a whole is put into service, i.e., the place where control of the system is exercised and beneficial use of the system obtained.") Accordingly, the system was being used in public, even if one or more components were located at the Media Lab.

In addition, Harman Objects to consideration of MIT's Exh. 16 (Docket Entry No. 160) as it is nothing more than MIT's own expert's report (which is inadmissible hearsay and unavailable for use by MIT). Moreover, MIT's expert does not have personal knowledge of the facts, and as such her opinions are inadmissible evidence.

**MIT STATEMENT NO. 29:**

The automobile equipped with the Back Seat Driver components was stored in a private MIT parking garage that had card access. Exh. 8 at 160:22-161:10.

**HARMAN'S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to Harman's motion.

MIT's Exh. 8 (Docket Entry No. 160), which is Mr. Schmandt's deposition testimony, makes no mention of the MIT garage being "private." In addition, card access may prevent unauthorized cars from entering and parking, but would not necessarily limit others from having access to the garage by foot. Indeed, the fact that the prototype was broken in to during the course of the inventor's research seriously calls into question this so-called "privacy." *See* (Docket Entry No. 160, Exhibit 7) at RITTMUELLER 111 ([[REDACTED]])

**MIT STATEMENT NO. 30:**

The field trials involved a driver driving the car and reacting to driving instructions generated at the Media Lab and sent over a cellular communications connection to a cellular telephone in the car. Exh. 17 at 6763; Exh. 18 at 6765.

**HARMAN'S RESPONSE:**

Objected to and Disputed in part, but no genuine issue of material fact relevant to Harman's motion.

Harman objects to this statement as vague with respect to timeframe. Anyone who drove a vehicle with a Back Seat Driver necessarily learned something about how the system worked, as they themselves interacted with the system interface and heard and followed instructions. In any event, the "public use" bar of Section 102(b) does not require the invalidating use to enable the users, or the public, in general, to understand how the system worked. *See Sys. Mgmt. Arts Inc. v. Avesta Techs., Inc.*, 87 F. Supp. 2d 258, 270 (S.D.N.Y. 2000); *see also Egbert v. Lippmann*, 104 U.S. 333, 336-37 (1881) (holding that a corset worn openly was in public use even though the invention was concealed within the corset); *Hall v. Macneale*, 107 U.S. 90, 97 (1883) (holding that a safe mechanism was in public use even though the invention could not be seen without destroying the safe).

In any event, the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 31:**

Davis or Schmandt was always in the car during any field trial. Exh. 10 at 31:14-17 (“‘The Back Seat Driver’ was always a research prototype, and I attempted to learn things from every experience I had of ‘The Back Seat Driver.’”); Exh. 17 at 6763; Exh. 18 at 6765; Exh. 11 at 12:5-18:

Q: Is it also likely to believe – or is it likely and reasonable to believe that somebody was driving the Back Seat Driver on a public road in the Boston area in the month of August of 1989?

A: I think it’s highly unlikely.

Q: Why do you say that?

A: Because in the month of August, Jim, who would have been the principal researcher – I’m sorry, *the researcher would have been in the car in the course of those trials*, those drivings, was working very hard to finish his thesis. And it is certainly possible that driving would have occurred, but I think it’s highly unlikely because I think at that point he had a very large document to produce.”

*Id.* (emphasis added).

**HARMAN’S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman’s motion.

The experimental use exception is unavailable with respect to pre-critical-date but post-reduction-to-practice uses. The “public use” bar to patentability applies whether the use is by the inventor or someone else. *See, e.g., Netscape Commc’ns Corp. v. Konrad*, 295 F.3d 1315, 1324-25 (Fed. Cir. 2002) (affirming the district court’s holding that an inventor’s demonstration of a prototype was invalidating public use); *accord Harrington Mfg. Co., Inc. v. Powell Mfg.*, 815 F.2d 1478, 1481 (Fed. Cir. 1986).

In addition, MIT’s Exh. 17 at 6763 (Docket Entry No. 160) is an unsigned consent form that (even if signed) does not support MIT’s statement that either Jim Davis or Chris Schmandt were in the car (it only mentions “a research team member”), and MIT has never produced any evidence that anyone ever signed this form. Indeed, on the proceeding page (MIT 6762) of this document as it was produced by MIT, at item 6 the document notes only 14 subjects have been used, meaning the remaining 36 of the 50 individuals who used the Back Seat Driver in 1989 are unaccounted for. (Docket Entry No. 146, Exhibit 18) at MIT 6762. MIT’s Exh. 18 at 6765 is dated December 22, 1988 and discusses plans for future uses, but does not purport to document what actually occurred with respect to the pre-critical-date and post-reduction-to-practice uses, and, as explained above, it is apparent that the protocol was not followed.

**MIT STATEMENT NO. 32:**

No driver could have driven the automobile without Davis or Schmandt present to record observations. Exh. 11 at 12:5-18.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The experimental use exception is unavailable with respect to pre-critical-date but post-reduction-to-practice uses. The "public use" bar to patentability applies whether the use is by the inventor or someone else. *See, e.g., Netscape Commc'ns Corp. v. Konrad*, 295 F.3d 1315, 1325 (Fed. Cir. 2002) (affirming the district court's holding that an inventor's demonstration of a prototype was invalidating public use); *accord Harrington Mfg. Co., Inc. v. Powell Mfg.*, 815 F.2d 1478, 1482 (Fed. Cir. 1986).

**MIT STATEMENT NO. 33:**

MIT retained ownership of the Acura Legend and the equipment therein until after the critical date. Exh. 15 at 1966; Exh. 8 at 177:9-17.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The experimental use exception is unavailable with respect to pre-critical-date but post-reduction-to-practice uses. The "public use" bar to patentability applies whether the use is by the inventor or someone else. *See, e.g., Netscape Commc'ns Corp. v. Konrad*, 295 F.3d 1315, 1324-25 (Fed. Cir. 2002) (affirming the district court's holding that an inventor's demonstration of a prototype was invalidating public use); *accord Harrington Mfg. Co., Inc. v. Powell Mfg.*, 815 F.2d 1478, 1481 (Fed. Cir. 1986). Whether or not MIT owned the vehicle in which the public uses took place is of no consequence here. *Id.*

**MIT STATEMENT NO. 34:**

The Acura Legend that housed prototype components was sold back to NEC with the navigation equipment inside it after the Back Seat Driver research concluded, on or around September 1992 and after the application for the '685 patent was filed. Exh. 8 at 177:9-17:

Q: Do you still have [the Back Seat Driver system]?

A: No.

Q: What happened to it?

A: NEC repurchased the vehicle from us and took the equipment with it.

Q: When did they do that?

A: At the end of the research period.

Q: Which was when?

A: It would have been – I can't tell you the exact date, because I'm not sure when it ended, because we took a no cost extension, probably sometime in 1992.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The experimental use exception is unavailable with respect to pre-critical-date but post-reduction-to-practice uses. The "public use" bar to patentability applies whether the use is by the inventor or someone else. *See, e.g., Netscape Commc'n Corp. v. Konrad*, 295 F.3d 1315, 1324-25 (Fed. Cir. 2002) (affirming the district court's holding that an inventor's demonstration of a prototype was invalidating public use); *accord Harrington Mfg. Co., Inc. v. Powell Mfg.*, 815 F.2d 1478, 1481 (Fed. Cir. 1986). Whether or not MIT owned the vehicle in which the public uses took place and when that vehicle was subsequently re-purchased by NEC is of no consequence here. *Id.*

**MIT STATEMENT NO. 35:**

MIT made a promotional video of an operational version of the Back Seat Driver in 1990, after the critical date. Exh. 10 at 80:24-81:11:

Q: Do you know whether Mr. Schmandt ever demonstrated 'The Back Seat Driver' of [sic] system at any of these conferences, like the one in June of '89?

A: I do not think it would have been possible for him to demonstrate the system, since to do that he would have to bring the car with him, and that wouldn't be easy to do.

Q: Well, a videotape was made of 'The Back Seat Driver' system, correct?

A: I believe the video – there was a videotape made. I believe it was made subsequent to September of '89.

Exh. 8 at 178:22-179:8:

A: I don't remember who in particular has seen it. I have shown that video to many, many people.

Q: What video?

A: The Back Seat Driver video.

MR. LEAVELL: Do we have a copy of that? Has that been produced?

THE WITNESS: I hope so. It's publicly available on my website.

MR. LEAVELL: Okay.

Q: When was that video shot?

A: 1990.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

Harman does not dispute that MIT made a video of the Back Seat Driver. Harman further does not dispute that MIT's witnesses claim to have shot that video in 1990. These facts are irrelevant to the pre-critical date uses of the patentable invention which took place before the video was made.

**MIT STATEMENT NO. 36:**

Davis and Schmandt continued to test the reliability of cellular telephone communications throughout 1989 and recorded their test results. Exh. 14 at 4390-95.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The inventors' testing of the cellular communications capabilities is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 37:**

Davis and Schmandt continued to change aspects of the Back Seat Driver prototype throughout the summer of 1989 in response to field trials that occurred. Exh. 11 at 12:19-13:12:

Q: Let's talk about the system as it existed in June and July of 1989. First of all, is there any reason to believe that any changes to the Back Seat Driver took place between June and July of 1989 or can we talk about that as one system?

A: There is no record of any changes. However, it is highly likely that there were changes.

Q: What do you say that?

A: Because at that time Jim was working very hard on finishing learning what he needed to learn and making the modifications to the software that he needed to make in order to call his thesis complete. The purposes of these field trials was to debug and evaluate his software. Therefore, if he learned anything and during any one of these drives, he almost certainly would have fixed that in which case each subsequent drive would have had different possible behavior.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The inventors' undocumented changes to the system are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 38:**

The problem of carrier loss was not solved until the computing apparatus was operated on-board the Acura Legend, which did not occur until after the critical date. Exh. 2 at 110; Exh. 4 at 1961-62; Exh. 10 at 14:12-21.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The inventors' testing of the cellular communications capabilities is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were

embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.*

**MIT STATEMENT NO. 39:**

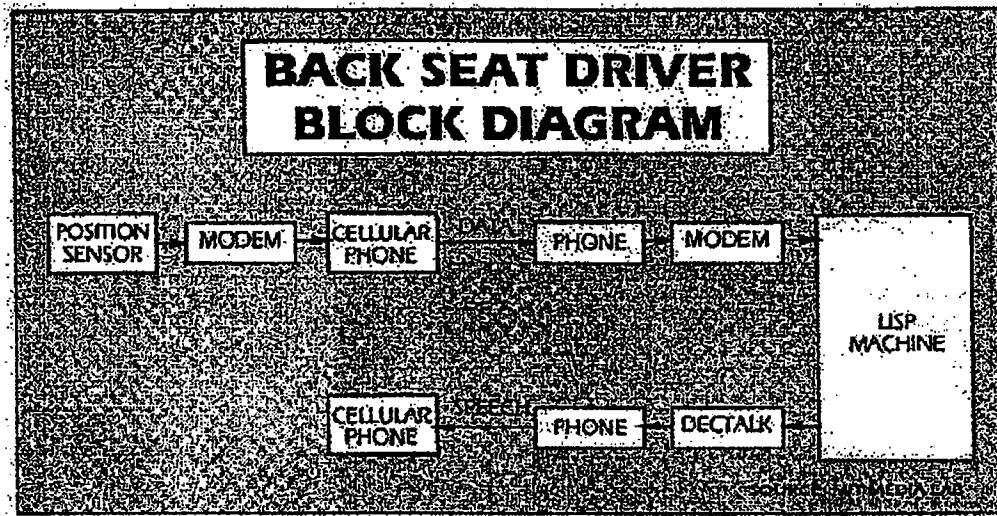
An industry press article from the Automotive Electronic News dated July 17, 1989, acknowledges that the prototype of the "Back Seat Driver" in use at that time was not a completed product and that changes to the system were ongoing. Exh. 19 at 710321 ("The next step in the Back Seat Driver's development, according to the researchers, is to determine exactly what a speech guidance system should say, how time and vehicle speed affect the instructions it gives, and what features a map database must have to support the generation of useful spoken instructions.").

**HARMAN'S RESPONSE:**

Objected to and Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

Harman objects to the use of the phrase "not a completed product and that changes to the system were ongoing" as vague as to which claims these changes pertained to. Regardless, the inventors' undocumented changes to the system are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.*

In addition, the trade newspaper article in Automotive Electronic News dated July 17, 1989 includes a block diagram which was provided to the author by the Media Lab and shows that the NEC position sensors were already installed in the prototype:



(Docket Entry No. 154, Exhibit 29) at 710321.

**MIT STATEMENT NO. 40:**

Dr. Davis testified that no one observing the car either from the street or in the car itself would understand how the invention was working. Exh. 10 at 104:22-105:13:

Q: Let me be more specific. When you were driving around Boston and Cambridge in 'The Back Seat Driver,' did you take any steps to protect the secrecy or confidentiality of the system?

A: No one looking at the car from the outside would have any reason to suspect that there was anything unusual in the car. It's certainly not necessary to, you know, disguise the car. You can't tell from looking what's going on. So it was not necessary to do the trials only at night or something if that's what you're getting at.

Q: I'm getting at anything. Is there anything that you did to ensure people weren't observing or listening or watching what you were doing?

A: It wasn't necessary.

**HARMAN'S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to Harman's motion.

Anyone who drove a vehicle with a Back Seat Driver necessarily learned something about how the system worked, as they themselves interacted with the system interface and heard and followed instructions. In any event, the "public use" bar of Section 102(b) does not require the invalidating use to enable the users, or the public, in

general, to understand how the system worked. *See Sys. Mgmt. Arts Inc. v. Avesta Techs., Inc.*, 87 F. Supp. 2d 258, 270 (S.D.N.Y. 2000); *see also Egbert v. Lippmann*, 104 U.S. 333, 336-37 (1881) (holding that a corset worn openly was in public use even though the invention was concealed within the corset); *Hall v. Macneale*, 107 U.S. 90, 97 (1883) (holding that a safe mechanism was in public use even though the invention could not be seen without destroying the safe).

In any event, the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

#### **MIT STATEMENT NO. 41:**

Dr. Davis testified during his deposition that he was not certain the Back Seat Driver was perfected until after this thesis was finalized, and the on-board computer was used. Exh. 10 at 169:4-13:

Q: Did you continue to use the working 'Back Seat Driver' with other people around the Boston area between June of '89, which you say is when you knew it would work, and August of '89, when you signed your thesis paper?

A: First of all, I think what I testified is that by June of '89 I was confident that the system would work. The date that that confidence began to appear, I'm not sure what the earliest date of confidence was.

*See also id.* at 14:12-21.

#### **HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39. As such, when the "Back Seat Driver was perfected" is not relevant to this motion.

**MIT STATEMENT NO. 42:**

The people that were allowed to field trial the Acura Legend were trusted friends, colleagues, and supporters of Davis, Schmandt, or the MIT Media Lab, all of whom recognized an implied duty to keep the research private, including Davis' now-wife, his research sponsor NEC, members of his thesis committee, student test subjects, and entities that understood Media Lab sponsorship. Exh. 10 at 178:8-10, 23-179:8; Exh. 17 at 6763; Exh. 18 at 6765; Exh. 21 at ¶¶ 8-9; Exh. 22 at 303:3-12.

**HARMAN'S RESPONSE:**

Objected to and Disputed, but no genuine issue of material fact relevant to Harman's motion.

Harman objects to the phrase "trusted friends, colleagues and supporters" as vague because MIT has not defined this phrase. It is unclear who MIT considers to be within these "trusted friends, colleagues and supporters" and whether it includes Streeter, Rittmueller, or Lesk. In addition, it is unclear whether MIT would include distribution absent confidentiality agreements within this term. Regardless, the idea that either Rittmueller or Streeter could be considered within this phrase is belied by their testimony regarding the confidentiality of the Back Seat Driver project. *See* (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 306:6-307:3; (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 119:3-5.

Harman further objects to the term "entities that understood Media Lab sponsorship" as vague because MIT has not defined this phrase. It is unclear what "entities" MIT considers to be within the meaning of this phrase, and whether it includes just NEC and General Motors or other unidentified entities as well.

Regardless, MIT cites no evidence which shows that any of the above listed persons or "entities" were under or understood any duty of confidentiality. MIT's Exh. 10 at 178:8-10, 23-179:8 (Docket Entry No. 160) which MIT cites regarding Davis' wife, shows only that he is not sure she operated the prototype at all, but may have only ridden in it. MIT's Exh. 17 at 6763 (Docket Entry No. 160) is an unsigned consent form that (even if signed) does not support MIT's statement that either Jim Davis or Chris Schmandt were in the car (it only mentions "a research team member"), and MIT has never produced any evidence that anyone ever signed this form. Indeed, on the proceeding page (MIT 6762) of this document as it was produced by MIT, at item 6 the document notes only 14 subjects have been used, meaning the remaining 36 of the 50 individuals who used the Back Seat Driver in 1989 are unaccounted for. (Docket Entry No. 146, Exhibit 18) at MIT 6762. MIT's Exh. 18 at 6765 (Docket Entry No. 160) is dated December 22, 1988 and discusses plans for future uses, but does not purport to document what actually occurred with respect to the pre-critical-date and post-reduction-to-practice uses, and, as explained with respect to MIT's Exh. 17, it is apparent that the protocol was not followed. MIT's Exh. 21 at ¶¶ 8-9 (Docket Entry No. 160) is the declaration of Davis which makes no mention of confidentiality whatsoever in the portion MIT cites. MIT's Exh. 22 at 303:3-12 (Docket Entry No. 160) is the deposition

testimony of Rittmueller, the NEC representative who both rode in the prototype and received a copy of Davis' thesis before it was available from the MIT library. Rittmeuller's testimony could not be more clear that with regard to confidentiality he only understood the Back Seat Driver project to be "confidential-ish" or "closely-held-ish." (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 306:6-307:3.

**MIT STATEMENT NO. 43:**

The purpose of the field trials was to ensure that the system was "safe, effective, durable and repeatable." Exh. 21 at ¶ 8.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 44:**

Aspects of the Back Seat Driver system, including its "discourse generator," changed in response to the field trials occurring in the summer of 1989. Exh. 11 at 20:5-13:

Q: How do you know that changes were made to the Discourse Generator after June of 1989?

MS. MOTTLEY: Same objection.

A: Because the changes that Jim Davis would have been working on to complete his thesis would have been aspects of the Discourse Generator.

Q: How do you know that?

MS. MOTTLEY: Same objection.

A: Because I was his thesis advisor.

*Id.* at 23:11-24:5:

Q: As of June of 1989, were you and Mr. Davis reasonably sure that you had developed a Discourse Generator that would work for its intended purpose as of that date?

MS. MOTTLEY: Same objection.

A: Clearly, we believed there was something – that we had built something that was beginning to work. We didn't believe it was a finished product or product not something for sale. Product means a piece of research. There were certainly changes that needed to be made. There were certainly – during that time period there were certainly changes that needed to be made in order for Jim to – for us to consider the work to be completed enough for Jim to get his thesis. Nonetheless, in June, we certainly – we both would have predicted with relative confidence that Jim's thesis was going to be finished at the end of the summer.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The inventors' undocumented changes to the system are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 45:**

The "Back Seat Driver" used a software system running on a computer. Exh. 2 at 16; Exh. 1 at 3:25.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion. Harman does not dispute that the Back Seat Driver used software running on a computer.

**MIT STATEMENT NO. 46:**

The "Back Seat Driver" was controlled by source code written by Davis. Exh. 10 at 212:9-17.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion. Harman does not dispute that Davis wrote the majority of the source code for the Back Seat Driver.

**MIT STATEMENT NO. 47:**

The source code files produced by MIT in this litigation demonstrate that Davis was making changes to the Back Seat Driver right up until the day the application for the '685 patent was filed, and continued to improve non-claimed features even afterwards. Exh. 23 at 4493.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The inventors' undocumented changes to the system are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 48:**

Neither Harman nor its experts have relied on the "Back Seat Driver" source code for any positions they have taken regarding validity or enforceability of the '685 patent.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The Back Seat Driver source code is irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 49:**

The source code, which was running the Back Seat Driver system, was not shown or made available to test subjects. Exh. 21 at ¶ 9.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The "public use" bar of Section 102(b) does not require the invalidating use to enable the users, or the public, in general, to understand how the system worked. *See Sys. Mgmt. Arts Inc. v. Avesta Techs., Inc.*, 87 F. Supp. 2d 258, 270 (S.D.N.Y. 2000); *see also Egbert v. Lippmann*, 104 U.S. 333, 336-37 (1881) (holding that a corset worn openly was in public use even though the invention was concealed within the corset); *Hall v.*

*Macneale*, 107 U.S. 90, 97 (1883) (holding that a safe mechanism was in public use even though the invention could not be seen without destroying the safe).

#### **MIT STATEMENT NO. 50:**

Mr. Grove, who as an undergraduate researcher and was “an integral part of the operation of the Backseat Driver,” “was never able to see the code of the program running the Backseat Driver,” even though he believed himself to be “reasonably proficient in LISP [the language running the system].” Exh. 13 at 709876-877.

#### **HARMAN’S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman’s motion.

The “public use” bar of Section 102(b) does not require the invalidating use to enable the users, or the public, in general, to understand how the system worked. *See Sys. Mgmt. Arts Inc. v. Avesta Techs., Inc.*, 87 F. Supp. 2d 258, 270 (S.D.N.Y. 2000); *see also Egbert v. Lippmann*, 104 U.S. 333, 336-37 (1881) (holding that a corset worn openly was in public use even though the invention was concealed within the corset); *Hall v. Macneale*, 107 U.S. 90, 97 (1883) (holding that a safe mechanism was in public use even though the invention could not be seen without destroying the safe).

Moreover, MIT cites no evidence to imply that the reason Mr. Grove was prevented from seeing the source code was due to the inventor’s protection of the code’s confidentiality. Indeed, it appears that Mr. Grove did at times enter source code commands into the Lisp system. *See* (Docket Entry No. 160, Exhibit 13) at HAR 709877 (“In fact, I was apologetic to when I ‘had to type some ugly expression into LISP.’ When I was dealing with LISP, I felt pretty good that I understood what commands I was issuing to the LISP machine.”)

#### **MIT STATEMENT NO. 51:**

The only electronic copies of Davis’ Ph.D. thesis were stored on a password-protected computer at the MIT Media Lab in a room that had keypad access. Exh. 11 at 113:19-23, 114:3-115:4; Exh. 24 at ¶ 3.

#### **HARMAN’S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to either Harman’s Motion for Invalidity due to Public Use or materiality and intent for Harman’s Motion for Unenforceability due to Inequitable Conduct.

It does not matter than only Davis and Schmandt had access to the thesis on the computer. The undisputed facts show, and MIT admits that “Davis controlled availability of his thesis.” *See* (Docket Entry No. 149, at MIT’s CSOF 5).

Moreover, Davis “could print a copy [of it] whenever he wanted and give that to anybody that he wanted to.” (Docket Entry No. 150, Exhibit 35 (filed under seal)) at 115:9-13; *see also* 115:14-116:3 (“Q. So you didn’t mean to imply the fact that the thesis was on a password protected computer in the Media Lab, that that excluded the possibility that anybody printed out and shared copies of the thesis? A. That limits the number of people who could print out and share copies of the thesis to approximately two. Q. How does it do that? A. Jim Davis and myself are the ones who had access to the document. Q. All right. But Jim Davis could have printed it out and shared it with anybody he wanted, right? A. He could have. Like I said, there were two people that could have done that; Jim Davis and myself.”).

The undisputed facts show that Rittmueller received a copy of Davis’ thesis before it was available from the library, as did Streeter and Lesk. *See* (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 306:6-307:3; (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 119:3-5.

#### **MIT STATEMENT NO. 52:**

Davis and Schmandt were the only people who knew the password. Exh. 11 at 115:14-23; Exh. 24 at ¶ 4.

#### **HARMAN’S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to either Harman’s Motion for Invalidity due to Public Use or materiality and intent for Harman’s Motion for Unenforceability due to Inequitable Conduct.

It does not matter than only Davis and Schmandt had access to the thesis on the computer. The undisputed facts show, and MIT admits that “Davis controlled availability of his thesis.” *See* (Docket Entry No. 149, at MIT’s CSOF 5).

Moreover, Davis “could print a copy [of it] whenever he wanted and give that to anybody that he wanted to.” (Docket Entry No. 150, Exhibit 35 (filed under seal)) at 115:9-13; *see also* 115:14-116:3 (“Q. So you didn’t mean to imply the fact that the thesis was on a password protected computer in the Media Lab, that that excluded the possibility that anybody printed out and shared copies of the thesis? A. That limits the number of people who could print out and share copies of the thesis to approximately two. Q. How does it do that? A. Jim Davis and myself are the ones who had access to the document. Q. All right. But Jim Davis could have printed it out and shared it with anybody he wanted, right? A. He could have. Like I said, there were two people that could have done that; Jim Davis and myself.”).

The undisputed facts show that Rittmueller received a copy of Davis’ thesis before it was available from the library, as did Streeter and Lesk. *See* (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 306:6-307:3; (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 119:3-5.

**MIT STATEMENT NO. 53:**

Davis' thesis was not publicly available until February 27, 1990, at the earliest; although Davis signed his thesis August 4, 1989. Exh. 2 at cover page; Exh. 11 at 112:23-113:12:

Q: Is there any evidence that anyone took any steps to preserve the confidentiality of Mr. Davis' thesis paper or drafts of his thesis paper at any time prior to August 9th, 1989?

A: Yes.

Q: What is the evidence?

A: The thesis was received at the M.I.T. library on February 27, 1990. The date is stamped on the thesis and has been verified with the library. That means the thesis was not turned over to the library for public dissemination until February 27, 1990. It was not shelved until September 1990, nor was it catalogued until that time. That's normal M.I.T. library delay.

**HARMAN'S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Harman does not dispute that Davis signed his thesis on August 4, 1989.

The undisputed facts show that Davis' thesis was "publicly available" because relevant members of the interested public received copies of it before it was shelved in the library. *See* (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [[REDACTED]]); (Docket Entry No. 133, Exhibit Ex. 3) at 187; (Docket Entry No. 133, Exhibit 4; *see also* (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 115:12 ([[REDACTED]]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis' Thesis to third parties "I need a copy of [the Davis thesis] sent to Karen Lochbaum Aiken Computation Lab . . ."); The words, lines, and pages of the copies of sent to Dr. Streeter and Mr. Rittmueller are identical to the copy that MIT later submitted to the PTO; only the signature on the Rittmueller copy differs. *See* (Docket Entry No. 133, Exhibit 2) at 111-276 (PTO); (Docket Entry No. 133, Exhibit 3) at 187 (Rittmueller); (Docket Entry No. 133, Exhibit 4) at 53 (Streeter).

**MIT STATEMENT NO. 54:**

Davis' thesis was not available to the public until it was shelved in the MIT Library, in September of 1990. Exh. 11 at 113:10-12.

**HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Mr. Schmandt's deposition and declaration are contrary to and cannot refute the contemporaneous documents and other evidence that demonstrates that Davis' thesis was distributed before it "was shelved in MIT's library" on February 27, 1990. *See* (Docket Entry No. 133, Exhibit 15) at 115:9-13 ("Q. So there were copies of the thesis that existed other than on that password protected computer, correct? A. Jim could print a copy whenever he wanted and give that to anybody that he wanted to."); (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [[REDACTED]]); (Docket Entry No. 133, Exhibit Ex. 3) at 187, (Docket Entry No. 133, Exhibit 4); *see also* (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 115:12 ([[REDACTED]]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis' Thesis to third parties "I need a copy of [the Davis thesis] sent to Karen Lochbaum Aiken Computation Lab . . ."), (Docket Entry No. 133, Exhibit 23) (In May 1989, after requesting from Davis a copy of "any papers [Davis had] written about [the Back Seat Driver]," a University of Minnesota student responded to Davis that she could "wait a couple weeks to see [Davis' T]hesis.")

Moreover, the undisputed facts show that Davis' thesis was "publicly available" because relevant members of the interested public received copies of it before it was shelved in the library. *See* (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [[REDACTED]]); (Docket Entry No. 133, Exhibit Ex. 3) at 187; (Docket Entry No. 133, Exhibit 4; *see also* (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 115:12 ([[REDACTED]]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis' Thesis to third parties "I need a copy of [the Davis thesis] sent to Karen Lochbaum Aiken Computation Lab . . ."); The words, lines, and pages of the copies of sent to Dr. Streeter and Mr. Rittmueller are identical to the copy that MIT later submitted to the PTO; only the signature on the Rittmueller copy differs. *See* (Docket Entry No. 133, Exhibit 2) at 111-276 (PTO); (Docket Entry No. 133, Exhibit 3) at 187 (Rittmueller); (Docket Entry No. 133, Exhibit 4) at 53 (Streeter).

**MIT STATEMENT NO. 55:**

A graduate student from the University of Minnesota requested an early copy of Davis' thesis, but he did not send the thesis to her. Exh. 21 at ¶ 5; Exh. 10 at 71:19-72:10:

Q: Is there any reason to doubt that you forwarded [Ms. Stuck, the graduate student] a copy of your thesis proposal in or around May of 1989?

A: There is no evidence here one way or the other.

Q: Does that sound like something you would have done back in May of 1989?

MR BAUER: Objection Speculation.

A: So one would speculate, I do speculate, that given such a request, I might have sent her the thesis proposal, which would describe what problem I was attempting to solve and why it was a novel solution, a novel problem, a problem worthy of attention. But it would not, of course, describe the actual solutions or conclusions of the work, only what's the problem.

**HARMAN'S RESPONSE:**

Objected to and Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Harman objects to the term "early copy" as vague and undefined regarding timing. Moreover, MIT cites no evidence to show that Ms. Stuck requested an "early copy." Ms. Stuck's email shows that she requested "any papers [Davis had] written about [the Back Seat Driver]."

In addition, Davis' declaration, which MIT relies on to support that no copy of the thesis was sent to Ms. Stuck, contradicts his earlier, sworn deposition testimony, where he could not recall any communication with Ms. Stuck at all, and therefore cannot create a genuine issue of fact. See (Docket Entry No. 150, Exhibit 32 (filed under seal)) at 69:22-70:3 ([[REDACTED]])

**MIT STATEMENT NO. 56:**

No one else outside of Davis' trusted colleagues through MIT requested information about the Back Seat Driver prior to August of 1989. Exh. 10 at 70:9-15:

Q: Prior to August of 1989, did you ever receive any additional requests from anyone, aside from Ms. Stuck, for information about 'The Back Seat Driver' project?

A: You mean by that people outside of M.I.T.?

Q: Let's start there. Correct.

A. No.

**HARMAN'S RESPONSE:**

Objected to and Irrelevant, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

The undisputed facts show that Davis' thesis was "publicly available" because relevant members of the interested public (including at least Rittmueller, Streeter and Lesk) received copies of it before it was shelved in the library. *See* (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [[REDACTED]]); (Docket Entry No. 133, Exhibit Ex. 3) at 187; (Docket Entry No. 133, Exhibit 4; *see also* (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 115:12 ([[REDACTED]]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis' Thesis to third parties "I need a copy of [the Davis thesis] sent to Karen Lochbaum Aiken Computation Lab . . ."); The words, lines, and pages of the copies of sent to Dr. Streeter and Mr. Rittmueller are identical to the copy that MIT later submitted to the PTO; only the signature on the Rittmueller copy differs. *See* (Docket Entry No. 133, Exhibit 2) at 111-276 (PTO); (Docket Entry No. 133, Exhibit 3) at 187 (Rittmueller); (Docket Entry No. 133, Exhibit 4) at 53 (Streeter). Harman also objects to the phrase "trusted colleagues" as vague and undefined.

Regardless, the idea that either Rittmueller or Streeter could be considered "trusted colleagues" is belied by their testimony regarding the confidentiality of the Back Seat Driver project and by the fact that a University of Minnesota student (Ms. Stuck) knew of and requested information about the Back Seat Driver project. *See* (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 306:6-307:3; (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 119:3-5; *see also* Harman's Response to MIT SOF No. 55, incorporated herein by reference.

**MIT STATEMENT NO. 57:**

Drafts of Davis' thesis were not public documents per MIT policy. Exh. 11 at 116:23-117:7:

Q: Is there any other evidence that M.I.T. contends supports any steps that were taken to preserve the confidentiality of Mr. Davis' thesis paper or drafts thereof during the time period prior to August 9th of 1989?

A: It's generally University policy, and M.I.T. is no exception, that drafts of documents such as thesis are not public. They are not to be distributed publicly.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Whether or not drafts were “public documents” is irrelevant. The undisputed facts show that the undisputed facts show that final versions of Davis’ thesis was “publicly available” because relevant members of the interested public (including at least Rittmueller, Streeter and Lesk) received copies of it before it was shelved in the library. *See* (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [[REDACTED]]); (Docket Entry No. 133, Exhibit Ex. 3) at 187; (Docket Entry No. 133, Exhibit 4; *see also* (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 115:12 ([[REDACTED]]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis’ Thesis to third parties “I need a copy of [the Davis thesis] sent to Karen Lochbaum Aiken Computation Lab . . .”); The words, lines, and pages of the copies of sent to Dr. Streeter and Mr. Rittmueller are identical to the copy that MIT later submitted to the PTO; only the signature on the Rittmueller copy differs. *See* (Docket Entry No. 133, Exhibit 2) at 111-276 (PTO); (Docket Entry No. 133, Exhibit 3) at 187 (Rittmueller); (Docket Entry No. 133, Exhibit 4) at 53 (Streeter).

#### **MIT STATEMENT NO. 58:**

The route-finder of Davis’ “Direction Assistance” program did not allow for the driver to make an illegal U turn. Exh. 25 at 10.

#### **HARMAN’S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman’s motion.

The inventors’ undocumented changes to the system are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* ’685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

In addition, the U turn feature is not a claimed feature and is therefore irrelevant to Claims 1, 42, and 45 which are asserted in this motion. The undisputed facts show that by at least June 1989 the “research prototype” in use by the inventors met every limitation of Claims 1, 42 and 45. *See* Harman’s SOF Nos. 14-15, 28-33, 35-39; *see also* MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) (“Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed **and direction sensors**. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]... The Back Seat Driver is already working in prototype form.” (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at “System Overview” (dated June 1989) (“The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].”) Moreover,

MIT admits that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* Harman's SOF Nos. 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 59:**

Davis' thesis does not mention that the Back Seat Driver system could handle illegal U turns. Exh. 2 at 67 (citing the absence of this information).

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The inventors' undocumented changes to the system are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

In addition, the U turn feature is not a claimed feature and is therefore irrelevant to Claims 1, 42, and 45 which are asserted in this motion. The undisputed facts show that by at least June 1989 the "research prototype" in use by the inventors met every limitation of Claims 1, 42 and 45. *See* Harman's SOF Nos. 14-15, 28-33, 35-39; *see also* MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) ("Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed *and direction sensors*. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]... The Back Seat Driver is already working in prototype form.") (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at "System Overview" (dated June 1989) ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].") Moreover, MIT admits that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* Harman's SOF Nos. 14-15, 28-33, 35-39.

**MIT STATEMENT NO. 60:**

Davis learned that his system would need to account for illegal U turns after a field trial with a General Motors driver. Exh. 10 at 31:10-32:9.

**HARMAN'S RESPONSE:**

Irrelevant, but no genuine issue of material fact relevant to Harman's motion.

The inventors' undocumented changes to the system are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

In addition, the U turn feature is not a claimed feature and is therefore irrelevant to Claims 1, 42, and 45 which are asserted in this motion. The undisputed facts show that by at least June 1989 the "research prototype" in use by the inventors met every limitation of Claims 1, 42 and 45. *See* Harman's SOF Nos. 14-15, 28-33, 35-39; *see also* MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) ("Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed ***and direction sensors***. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper].... The Back Seat Driver is already working in prototype form." (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at "System Overview" (dated June 1989) ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].") Moreover, MIT admits that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* Harman's SOF Nos. 14-15, 28-33, 35-39.

#### **MIT STATEMENT NO. 61:**

Drafts of Jim Davis' Ph.D. thesis were not publicly distributed. Exh. 11 at 116:23-117:7; *see also* Exh. 24 at ¶ 6; Exh. 21 at ¶ 7.

#### **HARMAN'S RESPONSE:**

Disputed and Objected to, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Harman objects to the phrase "publicly distributed" as a legal conclusion. Regardless, the undisputed evidence shows that the MIT library was not the only way to get a copy of Davis' thesis. Indeed, Streeter, Rittmueller and the PTO all received non-MIT library copies. *See* Harman's ICSOF 6, 8, 11. In addition, MIT admits that "Davis controlled availability of his thesis." The undisputed facts show, and MIT admits that "Davis controlled availability of his thesis." *See* (Docket Entry No. 149, at MIT's CSOF 5). Finally, the undisputed evidence shows that at least Streeter, Rittmueller, Lesk, and other "close colleagues or advisors" received copies of Davis' thesis prior to February 27, 1990. *See* (Docket Entry No 133, Exhibit 3); (Docket Entry No 133, Exhibit 4); (Docket Entry No 133, Exhibit 19) at 172; (Docket Entry No 133, Exhibit 15) at 115:9-13;

(Docket Entry No 133, Exhibit 11) at 165:2-5. Harman objects to the term “publicly distributed” as vague because MIT does not define this term. It is unclear who MIT considers to be within the “public” and whether it includes Streeter, Rittmueller, or “close colleagues or advisors.”

In addition, it is unclear whether MIT would include distribution absent confidentiality agreements within this term. Regardless, Davis admits that at least “members of [his] thesis committee or colleagues acting in an academic advisory capacity” received “drafts or finalized versions” of his thesis “in 1989.” MIT’s Exh. 21 at ¶ 7. The excerpt of Schmandt’s 30(b)(6) deposition (MIT’s Exh. 11), and Schmandt’s declaration (MIT’s Exh. 24 at ¶ 6) cited by MIT are irrelevant. Schmandt’s deposition testimony deals with general university policies related to drafts—not the undisputed facts of this case. (Docket Entry No. 160, Exhibit 11) at 116:23-117:7. Moreover, Schmandt’s declaration at ¶ 6 deals only with the (lack of) confidentiality associated with the Rittmueller copy of Davis’ thesis. (Docket Entry No. 160, Exhibit 24) at ¶ 6. Regardless, drafts are not the issue here because the undisputed evidence shows that both Streeter and Rittmueller received finalized and otherwise publishable non-library versions of Davis’ thesis since the words, lines, and pages of the copies of sent to Dr. Streeter and Mr. Rittmueller are identical to the copy that MIT later submitted to the PTO; only the signature on the Rittmueller copy differs. *See* (Docket Entry No. 133, Exhibit 2) at 111-276 (PTO); (Docket Entry No. 133, Exhibit 3) at 187 (Rittmueller); (Docket Entry No. 133, Exhibit 4) at 53 (Streeter).

#### **MIT STATEMENT NO. 62:**

Jim Davis did not print copies of his thesis or drafts and give them to the general public. Exh. 21 at ¶ 2; Exh. 11 at 116:23-117:7; *see also* Exh. 24 at ¶ 3.

#### **HARMAN’S RESPONSE:**

Disputed and Objected to, but no genuine issue of material fact relevant to either Harman’s Motion for Invalidity due to Public Use or materiality and intent for Harman’s Motion for Unenforceability due to Inequitable Conduct.

Harman objects to the phrase “general public” as vague because MIT has not defined this term. It is unclear who MIT considers to be within the “general public” and whether it includes Streeter, Rittmueller, Lesk, or “close colleagues or advisors.” In addition, it is unclear whether MIT would include distribution absent confidentiality agreements within this term. The undisputed evidence shows that Streeter, Rittmueller, Lesk, and “close colleagues and advisors” did receive copies of Davis’ thesis before February 27, 1990 and those copies did not issue from the MIT library. *See* (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [[REDACTED]]); (Docket Entry No. 133, Exhibit Ex. 3) at 187; (Docket Entry No. 133, Exhibit 4; *see also* (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 115:12 ([[REDACTED]]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis’ Thesis to third parties “I need a copy of [the Davis thesis]

sent to Karen Lochbaum Aiken Computation Lab . . ."); The words, lines, and pages of the copies of sent to Dr. Streeter and Mr. Rittmueller are identical to the copy that MIT later submitted to the PTO; only the signature on the Rittmueller copy differs. *See* (Docket Entry No. 133, Exhibit 2) at 111-276 (PTO); (Docket Entry No. 133, Exhibit 3) at 187 (Rittmueller); (Docket Entry No. 133, Exhibit 4) at 53 (Streeter).

Moreover, the evidence that MIT cites does not support its statement. First, Davis only declared that "it was not [his] normal practice to print copies of [his] draft thesis and give it to the general public . . ." MIT's Exh. 21 at ¶ 2. Similarly, the excerpt of Schmandt's 30(b)(6) deposition (MIT's Exh. 11), and Schmandt's declaration (MIT's Exh. 24 at ¶ 3) cited by MIT only deal with drafts. Drafts are not the issue here, and MIT cites no evidence to support the remainder of its statement that "Jim Davis did not print copies of his thesis . . . and give them to the general public." Moreover, this portion of MIT's statement is contrary to the undisputed evidence which shows that both Streeter and Rittmueller received finalized and otherwise publishable non-library versions of Davis' thesis before February 27, 1990 when the thesis became available from MIT's library. *See* (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [[REDACTED]]); (Docket Entry No. 133, Exhibit Ex. 3) at 187; (Docket Entry No. 133, Exhibit 4; *see also* (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 115:12 ([[REDACTED]]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis' Thesis to third parties "I need a copy of [the Davis thesis] sent to Karen Lochbaum Aiken Computation Lab . . ."); The words, lines, and pages of the copies of sent to Dr. Streeter and Mr. Rittmueller are identical to the copy that MIT later submitted to the PTO; only the signature on the Rittmueller copy differs. *See* (Docket Entry No. 133, Exhibit 2) at 111-276 (PTO); (Docket Entry No. 133, Exhibit 3) at 187 (Rittmueller); (Docket Entry No. 133, Exhibit 4) at 53 (Streeter).

#### **MIT STATEMENT NO. 63:**

Jim Davis defended his thesis sometime in the fall of 1989 after continued development and field trials conducted in the Summer of 1989. Exh. 24 at ¶ 7; Exh. 21 at ¶ 6.

#### **HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

MIT has come forward with no evidence to show the actual date and time of Davis' thesis defense. Indeed, all that Davis and Schmandt declare is that the thesis defense did not occur as shown in the flyer produced by Harman. *See* MIT's Exh. 24 at ¶ 7; MIT's Exh. 21 at ¶ 6. At best, Davis and Schmandt declare, without any supporting evidence, that the thesis defense occurred sometime "in the fall" or "late summer of 1989." *See* (Docket Entry No. 160, Exhibit 24) at ¶ 7; (Docket Entry No. 160, Exhibit

21) at ¶ 6. Moreover these declarations are contrary to the record evidence. *See* (Docket Entry No. 133, Exhibit 5) at 709861.

#### **MIT STATEMENT NO. 64:**

Prior to its publication in the MIT library, the only people who would have received drafts or a finalized version of Jim Davis' thesis would have been actual members of Jim Davis' thesis committee or colleagues acting in an academic advisory capacity. Exh. 21 at ¶ 7.

#### **HARMAN'S RESPONSE:**

Disputed in part and Objected to, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Harman does not dispute that the members of Davis' thesis committee and other non-member colleagues received copies of Davis' thesis "[p]rior to its publication in the MIT library." However, Harman does dispute that these were "the only people" who received such copies before February 27, 1990 when the thesis became available from the library. Indeed, the undisputed evidence shows that Rittmueller received a copy of Davis' thesis before this time, as did Streeter and Lesk. *See* (Docket Entry No 133, Exhibit 3); (Docket Entry No 133, Exhibit 4); (Docket Entry No 133, Exhibit 19) at 172; (Docket Entry No 133, Exhibit 15) at 115:9-13; (Docket Entry No 133, Exhibit 11) at 165:2-5. Harman also objects to the phrase "colleagues acting in an academic advisory capacity" as vague and undefined. Regardless, the idea that either Rittmueller or Streeter could be considered a "colleague acting in an academic advisory capacity" is belied by their testimony regarding the confidentiality of the Back Seat Driver project. *See* (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 306:6-307:3; (Docket Entry No. 133, Exhibit 16 (filed under seal) at 119:3-5.

#### **MIT STATEMENT NO. 65:**

The "flyer" Harman relies on to "show" that Jim Davis defended his thesis on May 26, 1989, is a draft with typographical errors and handwritten corrections. Exh. 21 at ¶ 6; *see also* Docket No. 146 at 5.

#### **HARMAN'S RESPONSE:**

Denied in part, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

The thesis defense flyer speaks for itself. MIT's assertion that this is a "draft" is belied by the fact that at least Mr. Grove received a copy of this flyer. *See* (Docket Entry No. 133, Exhibit 5) at 709861.

**MIT STATEMENT NO. 66:**

Jim Davis did not defend his thesis on May 26, 1989. Exh. 24 at ¶ 7; Exh. 21 at ¶ 6.

**HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

MIT has come forward with no evidence to show the actual date and time of Davis' thesis defense. *See* MIT's Exh. 24 at ¶ 7; MIT's Exh. 21 at ¶ 6. Indeed, all that Davis and Schmandt declare is that the thesis defense did not occur as shown in the flyer produced by Harman. *See* MIT's Exh. 24 at ¶ 7; MIT's Exh. 21 at ¶ 6. At best, Davis and Schmandt declare, without any supporting evidence, that the thesis defense occurred sometime "in the fall" or "late summer of 1989." *See* MIT's Exh. 24 at ¶ 7; MIT's Exh. 21 at ¶ 6. Surely Davis would have defended his thesis before he signed it and submitted it to the library on August 4, 1989, putting that defense before the critical date. *See* (Docket Entry No. 133, Exhibit 5) at 709861; (Docket Entry No. 150, Exhibit 2) at 111. However, to avoid this fact MIT refuses to pinpoint the details in order to argue inferences to the contrary.

**MIT STATEMENT NO. 67:**

Jim Davis was not ready to defend his thesis in May of 1989. Exh. 21 at ¶ 6.

**HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Indeed, MIT's assertion that this is a "draft" is belied by the fact that Mr. Grove received a copy of this flyer. *See* (Docket Entry No. 133, Exhibit 5) at 709861. MIT has come forward with no evidence to show the actual date and time of Davis' thesis defense. Indeed, all that Davis and Schmandt declare is that the thesis defense did not occur as shown in the flyer produced by Harman. *See* MIT's Exh. 24 at ¶ 7; MIT's Exh. 21 at ¶ 6. At best, Davis and Schmandt declare, without any supporting evidence, that the thesis defense occurred sometime "in the fall" or "late summer of 1989." *See* MIT's Exh. 24 at ¶ 7; MIT's Exh. 21 at ¶ 6. Surely Davis would have defended his thesis before he signed it and submitted it to the library on August 4, 1989, putting that defense before the critical date. *See* (Docket Entry No. 133, Exhibit 5) at 709861; (Docket Entry No. 150, Exhibit 2) at 111. However, to avoid this fact MIT refuses to pinpoint the details in order to argue inferences to the contrary.

**MIT STATEMENT NO. 68:**

The May 26, 1989, draft was created at a time when Jim Davis thought he might be able to graduate in June of 1989. Exh. 21 at ¶ 6.

**HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Indeed, MIT's assertion that this is a "draft" is belied by the fact that at least one member of the public, Mr. Grove, received a copy of this flyer. *See* (Docket Entry No. 133, Exhibit 5) at 709861. MIT has come forward with no evidence to show the actual date and time of Davis' thesis defense. Indeed, all that Davis and Schmandt declare is that the thesis defense did not occur as shown in the flyer produced by Harman. *See* MIT's Exh. 24 at ¶ 7; MIT's Exh. 21 at ¶ 6. At best, Davis and Schmandt declare, without any supporting evidence, that the thesis defense occurred sometime "in the fall" or "late summer of 1989." *See* MIT's Exh. 24 at ¶ 7; MIT's Exh. 21 at ¶ 6. Surely Davis would have defended his thesis before he signed it and submitted it to the library on August 4, 1989, putting that defense before the critical date. *See* (Docket Entry No. 133, Exhibit 5) at 709861; (Docket Entry No. 150, Exhibit 2) at 111. However, to avoid this fact MIT refuses to pinpoint the details in order to argue inferences to the contrary. In addition, this statement authenticates the flyer produced by Harman, as MIT now admits it was created by Davis. *See* Harman's Response to MIT SOF Nos. 17-19.

**MIT STATEMENT NO. 69:**

Phil Rittmueller did not receive a copy of the "Back Seat Driver Final Report," which bore a date of July 31, 1989, and attachments thereto, until after Jim Davis' thesis was completed. Exh. 22 at 149:4-16, 150:24-154:21; Exh. 21 at ¶ 3.

**HARMAN'S RESPONSE:**

Disputed in part, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Harman does not dispute that Rittmueller received a finished copy of Davis' thesis along with the July 31, 1989 Final Report. (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 151:5-10. Harman also does not dispute that Davis "signed and submitted his thesis" on August 4, 1989. However, the undisputed evidence shows that Rittmueller received a non-library issued copy of Davis' thesis before February 27, 1990. *See* (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 149:2-16, 151:5-10.

**MIT STATEMENT NO. 70:**

Phil Rittmueller did not receive a copy of Jim Davis' thesis before Jim Davis finished the thesis. Exh. 22 at 64:13-65:19.

**HARMAN'S RESPONSE:**

Not Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Harman does not dispute that Rittmueller received a *finished* copy of Davis' thesis along with the July 31, 1989 Final Report. (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 151:5-10. Harman also does not dispute that Davis "signed and submitted his thesis" on August 4, 1989, after it was finished. Even though Rittmueller received a *finished* copy of Davis' thesis, there is no evidence that he did not receive that copy before the critical date, and at the very least it was received before February 27, 1990 when it was shelved in the MIT library.

**MIT STATEMENT NO. 71:**

Phil Rittmueller did not receive a copy of Jim Davis' thesis until after the thesis was available in MIT's library. Exh. 22 at 153:24-154:21; Exh. 24 at ¶ 5.

**HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

MIT's Exh. 24 at ¶ 5 is Schmandt's declaration that Rittmueller did not receive Davis' thesis until it was shelved in the MIT library on February 27, 1990 is contrary to the undisputed facts. See (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 149:2-16, 151:5-10. Moreover, the portion of Rittmueller's testimony that MIT cites says only that Rittmueller does not recall receiving Davis' thesis until it was submitted to the library on *August 4, 1989*. See MIT's Exh. 22 at 153:24-154:21 (Docket Entry No. 160).

**MIT STATEMENT NO. 72:**

Phil Rittmueller understood that communications with Jim Davis and Chris Schmandt were confidential or "close to the vest." Exh. 22 at 303:3-12, 305:23-306:5; Exh. 24 at ¶ 6.

**HARMAN'S RESPONSE:**

Disputed and Objected to, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Harman objects to this statement because Mr. Schmandt lacks any basis or foundation to declare what Rittmueller understood. Moreover, Schmandt's declaration is contrary to the undisputed evidence. MIT's written policy at the time favored open sharing of information. *See* (Docket Entry No. 133, Exhibit 11) at 101:1-11 ([REDACTED]); (Docket Entry No. 133, Exhibit 24); *see also* (Docket Entry No. 133, Exhibit 11) at 105:10-16 ([REDACTED]). In addition, Mr. Rittmueller's deposition testimony confirms that there was no real understanding of confidentiality. (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 306:6-307:3.

**MIT STATEMENT NO. 73:**

The public did not have access to copies of Jim Davis' thesis until the thesis was shelved in MIT's library. Exh. 24 at ¶ 8; Exh. 11 at 113: 5-12.

**HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Mr. Schmandt's deposition and declaration are contrary to and cannot refute the contemporaneous documents and other evidence that demonstrates that Davis' thesis was distributed before it "was shelved in MIT's library" on February 27, 1990. *See* (Docket Entry No. 133, Exhibit 15) at 115:9-13 ("Q. So there were copies of the thesis that existed other than on that password protected computer, correct? A. Jim could print a copy whenever he wanted and give that to anybody that he wanted to."); (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [REDACTED]); (Docket Entry No. 133, Exhibit Ex. 3) at 187, (Docket Entry No. 133, Exhibit 4); *see also* (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 115:12 ([REDACTED]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis' Thesis to third parties "I need a copy of [the Davis thesis] sent to Karen Lochbaum Aiken Computation Lab . . ."), (Docket Entry No. 133, Exhibit 23) (In May 1989, after requesting from Davis a copy of "any papers [Davis had] written about [the Back Seat Driver]," a University of Minnesota student responded to Davis that she could "wait a couple weeks to see [Davis' T]hesis.")

Moreover, the undisputed evidence shows that relevant members of the interested public did receive copies of Davis' thesis before it was shelved in the library. *See* (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [REDACTED]); (Docket Entry No. 133, Exhibit Ex. 3) at 187; (Docket Entry No. 133, Exhibit 4; *see also* (Docket Entry No. 133, Exhibit 16 (filed

under seal)) at 115:12 ([[REDACTED]]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis' Thesis to third parties "I need a copy of [the Davis thesis] sent to Karen Lochbaum Aiken Computation Lab . . ."); The words, lines, and pages of the copies of sent to Dr. Streeter and Mr. Rittmueller are identical to the copy that MIT later submitted to the PTO; only the signature on the Rittmueller copy differs. *See* (Docket Entry No. 133, Exhibit 2) at 111-276 (PTO); (Docket Entry No. 133, Exhibit 3) at 187 (Rittmueller); (Docket Entry No. 133, Exhibit 4) at 53 (Streeter).

#### **MIT STATEMENT NO. 74:**

Any copies of Jim Davis' thesis that were sent to Lynn Streeter were done so with a view towards obtaining feedback from a professional colleague in an advisory role. Exh. 21 at ¶ 4.

#### **HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Davis' after-the-fact declaration contradicts Streeter's earlier deposition testimony, in which she testified that she either did not consider the project secret, or had no personal knowledge as to its confidentiality. (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 119:3-5; (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 117:1-11. Moreover, MIT cites no evidence and indeed has no personal knowledge to explain why Lesk, who MIT contends gave Streeter her copy of Davis' thesis, was under the impression that Streeter would provide "feedback [as] a professional colleague in an advisory role." *See* (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 37:9-14 ([[REDACTED]])

#### **MIT STATEMENT NO. 75:**

Lynn Streeter recognized academic and ethical obligations kept Jim Davis' thesis from being publicly available. Exh. 26 at ¶¶ 3, 7.

#### **HARMAN'S RESPONSE:**

Disputed, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Streeter's after-the-fact declaration contradicts her earlier deposition testimony, in which she testified that either did not consider the project secret, or had no personal knowledge as to its confidentiality. (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 119:3-5; (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 117:1-11; *see also* (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 37:9-14 ([[REDACTED]])

**MIT STATEMENT NO. 76:**

Formal “restrictions” regarding confidentiality were not necessary because Lynn Streeter was a colleague of Jim Davis and Chris Schmandt. Exh. 21 at ¶ 4.

**HARMAN'S RESPONSE:**

Disputed and Objected to, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Harman objects to this statement as it is a legal conclusion, not a fact. There is no implied confidentiality for colleagues for purposes of 102(b) invalidity. Regardless, Streeter was a colleague of Lesk at Bell Labs, not Davis and Schmandt. (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 59:6-7. Indeed, Davis' declaration, which is the only evidence MIT has cited to show that Streeter was his colleague, is belied by Streeter's own sworn testimony that she had no personable knowledge about anything Davis and Schmandt were doing with the Back Seat Driver project. *See* (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 117:1-11; *see also* (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 37:9-14 ([[REDACTED]]).

**MIT STATEMENT NO. 77:**

Drafts of Jim Davis' thesis were not available or distributed publicly. Exh. 11 at 113:13-21, 116:23-117:7; Exh. 24 at ¶ 3.

**HARMAN'S RESPONSE:**

Disputed and Objected to, but no genuine issue of material fact relevant to either Harman's Motion for Invalidity due to Public Use or materiality and intent for Harman's Motion for Unenforceability due to Inequitable Conduct.

Harman objects to this statement as it is a legal conclusion, not a fact. Schmandt and Davis's self-serving testimony and declaration cannot dispute the contemporaneous documentation and third-party testimony, which establishes that copies of Davis' thesis were, in fact, distributed. *See* (Docket Entry No. 133, Exhibit 2) at 111; (Docket Entry No. 133, Exhibit 19 (filed under seal)) at 172 (enclosing [[REDACTED]]); (Docket Entry No. 133, Exhibit Ex. 3) at 187; (Docket Entry No. 133, Exhibit 4; *see also* (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 115:12 ([[REDACTED]]), 119:3-5; (Docket Entry No. 133, Exhibit 4) at 52-53 (Dr. Streeter then forwarded Davis' Thesis to third parties “I need a copy of [the Davis thesis] sent to Karen Lochbaum Aiken Computation Lab . . .”); The words, lines, and pages of the copies of sent to Dr. Streeter and Mr. Rittmueller are identical to the copy that MIT later submitted to the PTO; only the signature on the Rittmueller copy differs. *See* (Docket Entry No. 133, Exhibit 2) at 111-276 (PTO); (Docket Entry No. 133, Exhibit 3) at 187 (Rittmueller); (Docket Entry No. 133, Exhibit 4) at 53 (Streeter).

### III. HARMAN'S STATEMENTS OF FACT

#### HARMAN'S STATEMENT OF FACT NO. 1:

The patent application that matured into the '685 patent was filed on August 9, 1990. (Tab 1, '685 patent at cover page.)

#### MIT'S RESPONSE:

MIT does not dispute this.

- A. **Claim 1 Was Embodied In Systems Used By Fifty Different People, On Public Roads Around Boston, More Than One Year Before The Filing Date of the '685 Patent.**

#### HARMAN'S STATEMENT OF FACT NO. 2:

In the late 1980's, Jim Davis was a graduate student at MIT working in the MIT Media Lab under his faculty advisor, Chris Schmandt, who also served as the Director of the Speech Research Group. (Tab 2, Davis thesis, Acknowledgements.)

#### MIT'S RESPONSE:

MIT does not dispute this.

#### HARMAN'S STATEMENT OF FACT NO. 3:

At least as early as April, 1988, Davis and Schmandt conceived of the project called the Back Seat Driver that involved automobile navigation using spoken directions, including the subject matter of claims 1 and 42 of the '685 patent. (Tab 3, MIT's June 16, 2006 Supplemental Response to Harman Interrogatory No. 13 noting "claims 1-4, 7-10, 14, 16, 19, 24, 27, 28, 42-44, 48, 55, and 57-58 were conceived at least as early as April 1988".)

#### MIT'S RESPONSE:

MIT does not dispute that there was a research project called Back Seat Driver. This statement of fact is vague, however, insofar as Harman fails to specify which version(s) of the Back Seat Driver this statement of fact refers to. MIT disputes any inference Harman seeks to draw that the Back Seat Driver was publicly accessible or in the public domain in April 1988.

#### HARMAN'S REPLY:

No genuine issue of material fact relevant to Harman's motion.

MIT admits conception at least as early as April 1988 in its Interrogatory response and there is no evidence that such conception was in connection with any project other than the Back Seat driver, indeed, the evidence MIT cites in its Interrogatory is from the Back Seat Driver project. *See* (Docket Entry No. 154, Exhibit 3) at 15. MIT's purported dispute regarding the "versions" of the Back Seat Driver is irrelevant to Harman's motion as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

#### **HARMAN'S STATEMENT OF FACT NO. 4:**

By the end of April 1989, the Back Seat Driver was "working well" and had made "dozens" of "successful" uses, including uses by subjects. (Tab 4, filed under seal RITTMUELLER 108 ([REDACTED]) and RITTMUELLER 112 ([REDACTED])); (Tab 5, MIT 938 ("The system has been running in prototype form since April 1989").)

#### **MIT'S RESPONSE:**

MIT disputes this statement of fact and the inferences Harman seeks to draw from this statement. As pointed out above, Harman fails to identify which version of the "Back Seat Driver" prototypes this statement of fact refers to. Based on the letter and the published paper Harman refers to, the version of the system Harman refers to appears to be "Version 2" of the system, which did not embody the content of any of claims 1, 42, or 45 at least because "Version 2" required a human operator to ride in the vehicle. *See* Exh. 7 at 111. Moreover, Harman mischaracterizes and misquotes the reference that Harman relies upon. The Report dated April 30, 1989, refers to "successful trips," not successful "uses," which is a legal conclusion. This point was clarified during MIT's Rule 30(b)(6) testimony:

Q: What about Claim 3 in the '685 patent, did the Back Seat Driver, as it existed in the successful field trials in June of '89, include the subject matter recited in Claim 3 of the '685 patent?

MS. MOTTLEY: Same objections.

A: I'm concerned because suddenly you've introduced the word successful. You refer to successful field trials.

Q: Let me rephrase –

A: There was not any particular metric of success in these.

Exh. 11 at 26:2-12.

**HARMAN'S REPLY:**

No genuine issue of material fact relevant to Harman's motion.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

MIT's objection that "the term 'use' has a legal meaning in this context" is baseless. There is no special or legal meaning of the term "use." The issue of "public use" is an issue of law for the Court, but there is no genuine dispute that the uses addressed in this statement of fact actually occurred as described, and MIT does not deny or dispute that they did.

In addition, MIT's Exh. 11 at 26:2-12 does not support MIT's assertion that the field trials were not "uses" of the Back Seat Driver. Regardless, MIT's objection to Harman's use of the word "uses" as opposed to "trips" is a distinction without a difference. Whether called "uses" or "trips" the undisputed facts show that the field trials were invalidating public uses. *See* Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**HARMAN'S STATEMENT OF FACT NO. 5:**

The Back Seat Driver was a working system, on the road, on the public streets around Boston, at least as early as June 9, 1989. (Tab 6, MIT 1101-1102 at "Summary" (paper was presented at the June 6-9, 1989 International Conference of Consumer Electronics, in Rosemont, Illinois (Tab 1, at 3:63-66)); *see also* (Tab 7, MIT 30(b)(6) Schmandt Dep. at 9:4-20, 10:16-24, Tab 38, filed under seal, MIT 30(b)(6) Schmandt Dep. at 84:2-13); (Tab 11, "Synthetic Speech For Real Time Direction-Giving" ("1989 IEEE Back Seat Driver Paper") (footer noting "Manuscript received June 9, 1989").)

**MIT'S RESPONSE:**

MIT disputes this statement of fact and the inferences Harman seeks to draw from this statement. MIT does not dispute that an abstract for a paper authored by Schmandt and Davis was dated June 9, 1989. MIT disputes Harman's characterization of the Back Seat Driver as a "working system," which implies commercial readiness. Both references that Harman cites to state, "The Back Seat Driver is a research prototype of a system...We are evaluating the user interface by field trials." *See* Docket No. 144 at 12.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Docket No. 144 at 12 is a series of block quotes from MIT's Opposition Brief to Harman's Inequitable Conduct Motion, and does nothing more than set forth a portion of the June 9, 1989 document. Indeed, the June 9, 1989 article speaks for itself, and MIT's objection to the term "working system" is misplaced.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.*

In addition, whether the Back Seat Driver was "commercially exploitable" is irrelevant to its reduction to practice, and is not a basis for claiming the uses were for experimentation. *See Netscape Commc'n Corp. v. Konrad*, 295 F.3d 1315, 1322 (Fed. Cir. 2002) (affirming the district court's holding that an inventor's demonstration of a prototype was invalidating public use because "[the inventor's] demonstration was geared more toward making the remote database object more commercially attractive, with endorsements from outside technical people, than for experimental use purposes. The experimental use negation is unavailable to a patentee when the evidence presented does not establish that he was conducting a bona fide experiment.")

**HARMAN'S STATEMENT OF FACT NO. 6:**

From May 1, 1989 through July 31, 1989, approximately 50 persons drove around Boston using MIT's Back Seat Driver system. (Tab 8, filed under seal, RITTMUELLER 173); *see also* (Tab 9, Davis Dep. at 86:1-91:15); (Tab 10, Schmandt Dep. at 183:13-184:3); (Tab 11, MIT 933 ("[a]t the time of this writing (June 1989) we have a working system on the road")); (Tab 11, MIT 936 ("[t]he Back Seat Driver is already working")); (Tab 5, MIT 938 ("Running in prototype form since April 1989").)

**MIT'S RESPONSE:**

MIT disputes the inferences Harman seeks to draw from this statement suggesting there was final system. MIT disputes Harman's conclusion that any of the people driving a vehicle equipped with Back Seat Driver equipment "used" or were "using" the "Back Seat Driver system" as the term "use" has a legal meaning in this context. As pointed out

above, Harman fails to identify which version of the “Back Seat Driver” prototype this statement of fact refers to. MIT also objects to Harman’s mischaracterization of the documents Harman cites -- they refer to “50 subjects,” clearly implying experimentation and testing. Exh. 21 at ¶¶ 8-9.

#### **HARMAN’S REPLY:**

No genuine issue of material fact relevant to Harman’s motion.

Whether there were multiple versions is irrelevant to Harman’s motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* ’685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

In addition, MIT’s objection to the phrase “50 persons” as opposed to “50 subjects” is a distinction without a difference. The quarterly report where “50 subjects” comes from speaks for itself. *See* MIT’s Exh. 21 at 8-9 (Docket Entry No. 160), which is Davis’ declaration, does not support MIT’s assertion that “50 subjects” implies “experimentation and testing.” At best the portions of Davis’ declaration relied on by MIT appear to deal only with the undergraduate students who used the prototype, saying nothing about the remainder of the “50 subjects.” Moreover, Davis’ declaration contradicts his deposition testimony that he does not recall anything about any of the pre-critical-date uses. *See* (Docket Entry No. 150, Exhibit 32 (filed under seal)) at 75:18-19; 76:12-21.

#### **HARMAN’S STATEMENT OF FACT NO. 7:**

People who used or saw a working Back Seat Driver system on the public streets of Boston include MIT students, members of Davis’ thesis committee, Mr. Rittmueller, other NEC employees, General Motors personnel, and other third parties. (Tab 39, filed under seal, Davis Dep. at 32:7-9; 74:23-75:4); (Tab 12, filed under seal, Rittmueller Dep. at 57:13-58:1 ([REDACTED]), 58:11-24, and 61:8-12); (Tab 40, filed under seal, Schmandt Dep. at 88:16-18, 97:21-24, 99:2-11); (Tab 13, filed under seal, Streeter Dep. at 116:11-23).

#### **MIT’S RESPONSE:**

MIT disputes this statement of fact and the inferences Harman seeks to draw from this statement. First, there is no evidence anyone “saw” the system on the public streets, other than those working with the inventors. Second, none of the people identified by Harman *saw* the “Back Seat Driver system” because at least six components of the system were not present in any automobile driven before the critical date. MIT also disputes Harman’s characterization of the field trials as “use” as the term “use” has a legal meaning in this context. Harman also does not identify what “third parties” it refers

to. MIT also disputes any inference that Harman seeks to draw based on the number of or diversity in people who may have conducted field trials because Davis and Schmandt controlled the drivers' access to elements of the system and what information they could possibly learn about the system from the field trials. Dr. Davis, during his deposition, testified that:

A: 'The Back Seat Driver' was *always a research prototype*, and I attempted to learn things from every experience I had of 'The Back Seat Driver.' Certainly in this case [referring to the General Motors field trial], I learned something important about U-turns that I might never have learned...I learned that my program would have to account for [a driver making an illegal U turn, a maneuver Dr. Davis hadn't planned for].

Exh. 10 at 31:14-23:3 (emphasis added). *See also* MIT's SOF 40, *supra*.

#### **HARMAN'S REPLY:**

No genuine issue of material fact relevant to Harman's motion.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

In addition, MIT's objection to the lack of identity of the majority of the 50 persons who used the Back Seat Driver is misplaced. The reason that these persons are unidentified lies solely with MIT. Indeed, the undisputed evidence shows that at least 50 people used the Back Seat Driver before the critical date. *See* Harman's SOF Nos. 6-9.

Regarding MIT's contention that the more than 50 pre-critical date uses of the Back Seat Driver is excused by the inventor's "control" of those uses, MIT cites no evidence here to support that assertion. Moreover, anyone who drove a vehicle with a Back Seat Driver necessarily learned something about how the system worked, as they themselves interacted with the system interface and heard and followed instructions. In any event, the "public use" bar of Section 102(b) does not require the invalidating use to enable the users, or the public, in general, to understand how the system worked. *See Sys. Mgmt. Arts Inc. v. Avesta Techs., Inc.*, 87 F. Supp. 2d 258, 270 (S.D.N.Y. 2000); *see also Egbert v. Lippmann*, 104 U.S. 333, 336-37 (1881) (holding that a corset worn openly was in public use even though the invention was concealed within the corset); *Hall v. Macneale*, 107 U.S. 90, 97 (1883) (holding that a safe mechanism was in public use even though the invention could not be seen without destroying the safe).

Exh. 10 at 31:14-32:3 (Docket Entry No. 160) which MIT relies on to support this assertion deals only with one instance where changes were made to how the system dealt with the driver making a U-turn. The U turn feature is not a claimed feature and is therefore irrelevant to Claims 1, 42, and 45 which are asserted in this motion. The undisputed facts show that by at least June 1989 the “research prototype” in use by the inventors met every limitation of Claims 1, 42 and 45. See Harman’s SOF Nos. 14-15, 28-33, 35-39; *see also* MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) (“Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd. , the project sponsor. It is a dead-reckoning position keeping system which uses speed *and direction sensors*. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]... The Back Seat Driver is already working in prototype form.”) (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at “System Overview” (dated June 1989) (“The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].”) Moreover, MIT admits that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* Harman’s SOF Nos. 14-15, 28-33, 35-39.

#### **HARMAN’S STATEMENT OF FACT NO. 8:**

There is no evidence that anyone ever signed any confidentiality agreement regarding the 1989 uses of the Back Seat Driver system, and no reason to believe that anyone did so. (Tab 39, filed under seal, Davis Dep. at 76:17-77:5); *see also* (Tab 14, MIT’s April 21, 2006 Responses to Harman’s Requests for the Production of Documents and Things Nos. 33 and 47 (“MIT states that it has already produced or logged on its privilege log any documents in its possession, custody, or control responsive to this Request.”).)

#### **MIT’S RESPONSE:**

MIT disputes any inferences Harman seeks to draw from this statement. Confidentiality agreements are not dispositive on the issue of public use. Signed confidentiality agreements were not necessary because Davis and Schmandt controlled any possible dissemination of information about the Back Seat Driver by controlling the experimental environment and limiting test subjects’ exposure to at most only the “driver input means” and the “voice apparatus.” The field trial drivers were trusted colleagues of Davis and Schmandt or undergraduate students bound by ethical obligations with regard to the research, and drivers only drove the car during field trials with Davis or Schmandt present and by permission. MIT also disputes Harman’s reference to the “Back Seat Driver system” without specifying which version of the prototypes it refers to. MIT also disputes Harman’s conclusion that any field trials amounted to “use” of the “Back Seat Driver system” as the term “use” has a legal meaning in this context, and because any

field trials were for experimental purposes under the complete control of the inventors, and therefore do not satisfy the public use prong of *Invitrogen*.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Although irrelevant to Harman's motion, Harman objects to MIT's use of the term "trusted colleagues" as vague because MIT has not defined this phrase. It is unclear who MIT considers to be within these "trusted friends, colleagues and supporters" and whether it includes Streeter, Rittmueller, or Lesk. Regardless, the idea that either Rittmueller or Streeter could be considered within this phrase is belied by their testimony regarding the (lack of) confidentiality of the Back Seat Driver project. *See* (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 306:6-307:3; (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 119:3-5.

MIT's assertion that confidentiality was not necessary because the inventors "controlled any possible dissemination of information about the Back seat Driver" is belied by the fact that Streeter learned about the prototype from Lesk. (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 7:20-8:5 ("Well, the person that I worked with, Michael Leske at Bell Laboratories and Bellcore made frequent visits to MIT and was quite familiar with Jim's work and so would come back and tell us about it and also we got, you know, his thesis the day it was published basically."), 116:11-23 ([[REDACTED]]) The fact that Lesk provided Streeter with a "running commentary" about what was going on with the Back Seat Driver research shows that, in fact, the inventors had very little control over what information was shared about their research.

In addition, MIT itself published, submitted and disseminated information about the uses before the critical date. *See, e.g.*, (Docket Entry No. 154, Exhibit 29); (Docket Entry No. 154, Exhibit 21); (Docket Entry No. 154, Exhibit 6).

Furthermore, anyone who drove a vehicle with a Back Seat Driver necessarily learned something about how the system worked, as they themselves interacted with the system interface and heard and followed instructions. In any event, the "public use" bar of Section 102(b) does not require the invalidating use to enable the users, or the public, in general, to understand how the system worked. *See Sys. Mgmt. Arts Inc. v. Avesta Techs., Inc.*, 87 F. Supp. 2d 258, 270 (S.D.N.Y. 2000); *see also Egbert v. Lippmann*, 104 U.S. 333, 336-37 (1881) (holding that a corset worn openly was in public use even though the invention was concealed within the corset); *Hall v. Macneale*, 107 U.S. 90, 97 (1883)

(holding that a safe mechanism was in public use even though the invention could not be seen without destroying the safe).

Finally, whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

#### **HARMAN'S STATEMENT OF FACT NO. 9:**

None of the more than 50 persons who used a Back Seat Driver system on public streets prior to August, 1989, signed a confidentiality agreement. (Tab 40, filed under seal, Schmandt Dep. at 88:22-89:18); (Tab 39, filed under seal, Davis Dep. at 76:17-77:5); (Tab 8, filed under seal, RITTMUELLER 173); (Tab 4, filed under seal, RITTMUELLER 108).

#### **MIT'S RESPONSE:**

See response to Harman's SOF 8.

#### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

*See* Harman's Reply to SOF No. 8, incorporated herein by reference.

#### **HARMAN'S STATEMENT OF FACT NO. 10:**

The subject matter of claim 1 was present in the Back Seat Driver prototype "running in prototype form since April 1989" and "successfully used by drivers who have never driven in Boston." (Tab 5, at MIT 00938 "The Back Seat Driver: Real Time Spoken Driving Instructions" ("VNIS '89 Back Seat Driver Paper").)

#### **MIT'S RESPONSE:**

MIT does not dispute that the VNIS '89 Back Seat Driver Paper cited by Harman says "The system has been running in prototype form since April 1989. It has been successfully used by drivers who have never driven in Boston." MIT disputes the inferences Harman attempts to draw from this statement of fact. Harman fails to identify

which version of the Back Seat Driver prototypes it refers to as running in prototype form in April 1989. The paper cited by Harman to support this statement of fact ("the VNIS 1989 paper") identifies the Back Seat Driver as running in "prototype form" without specifying which version of the Back Seat Driver prototype was referred to. MIT disputes Harman's conclusion that any field trials of Back Seat Driver prototypes amount to "use" of the invention of claim 1 as the term "use" has a legal meaning in this context.

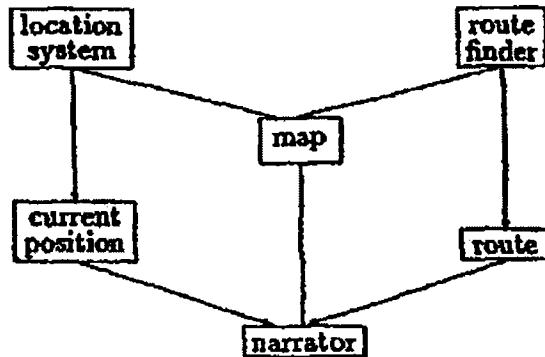
**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

Regardless, MIT admitted these facts in its 30(b)(6) deposition. (Docket Entry No. 154, Exhibit 7 (filed under seal)) at 24:14-18 ([[REDACTED]])

In addition, the VNIS '89 Back Seat Driver paper (submitted in for publication in June 1989) makes no distinction about what "version" of the Back Seat Driver prototype had "been running in prototype form since April 1989." (Docket Entry No. 154, Exhibit 5) at MIT 938. The VNIS article also describes the system as having the location system in the car. *Id.* ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead-reckoning and map matching.") Moreover, the figure included in the VNIS paper shows the location system as being a part of the system's architecture at that time (June 1989).



**Figure 1: Back Seat Driver components**

*Id.*

**HARMAN'S STATEMENT OF FACT NO. 11:**

The subject matter of claim 1 of the '685 patent was embodied in the Back Seat Driver system used on the public streets in or around Boston in June, 1989. (Tab 7, MIT 30(b)(6) Dep. at 24:6-18.)

**MIT'S RESPONSE:**

MIT disputes this statement of fact and inferences Harman seeks to draw from it. Harman does not specify which version of the "Back Seat Driver" prototype it refers to. MIT disputes Harman's conclusion that field trials of the Back Seat Driver system amounted to "use" of the patented invention as the term "use" has a legal meaning in this context.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's objection that "the term 'use' has a legal meaning in this context" is baseless. There is no special or legal meaning of the term "use." The issue of "public use" is an issue of law for the Court, but there is no genuine dispute that the uses addressed in this statement of fact actually occurred as described, and MIT does not deny or dispute that they did.

In addition, whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and

that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**HARMAN'S STATEMENT OF FACT NO. 12:**

The subject matter of claim 1 of the '685 patent was embodied in every use of the Back Seat Driver system that occurred after June 1989. (Tab 7, MIT 30(b)(6) Dep. at 24:6-27:20 (addressing dependent claims, but, by definition, claims depending on claim 1 also embody claim 1).)

**MIT'S RESPONSE:**

See Response to Harman's SOF 11.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

*See* Harman's Reply to SOF No. 11, incorporated herein by reference.

**HARMAN'S STATEMENT OF FACT NO. 13:**

The Back Seat Driver continued to be driven around the public streets of Boston in July, 1989. (Tab 7, MIT 30(b)(6) Dep. at 9:4-20, 10:16-12:4); Tab 3, MIT's June 16, 2006 Supplemental Response to Harman Interrogatory No. 14); (Tab 8, filed under seal, RITTMUELLER 173).

**MIT'S RESPONSE:**

MIT does not dispute that field trials occurred in July 1989. However, MIT disputes any inferences Harman seeks to draw therefrom. Harman has not shown that "Version 3" of the Back Seat Driver prototype was actually used for any of the field trials in July 1989. In fact, the NEC Vehicle Navigation System (the "location system") used in "Version 3" "arrived only during the final weeks of the project...[the inventors] found several difficulties with the design and operation of the Navigation System" and the inventors indicated they would "describe these in detail in a letter to follow shortly, as part of [the] work under the Extension to the current" research sponsorship. Exh. 9 at 176.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.*

Moreover, the implication that MIT gives regarding the fact that the July 1989 quarterly report states that the NEC position sensor "arrived only during the final weeks of the project" is misplaced. This statement is vague as to time, and MIT's inference that this meant the position sensor was not in the system before the critical date is belied by the undisputed facts which show that by at least June 1989 the "research prototype" in use by the inventors met every limitation of Claims 1, 42, and 45. *See Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39; see also MIT 1101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) ("Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed **and direction sensors**. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]. The Back Seat Driver is already working in prototype form" (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at "System Overview" (dated June 1989) ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].")*

Exh. 9 at 176 which MIT relies upon to support this inference says nothing more than that the inventors had "found several difficulties with the design and operation of the Navigation System. We will describe these in detail in a letter to follow shortly, as part of our work under the Extension to the current contract." That "Extension" dealt primarily with the task of moving the computer system from the Media Lab into the car as the position sensor was already installed, and had been used, in the car by that time. *See (Docket Entry No. 160, Exhibit 4).*

**HARMAN'S STATEMENT OF FACT NO. 14:**

The subject matter recited in claim 1 of the '685 patent was embodied in a Back Seat Driver system that was used on public streets around Boston between the end of June 1989 and August 4, 1989. (Tab 7, MIT 30(b)(6) Schmandt Dep. at 24:6-18); (Tab 3, MIT's June 16, 2006 Supplemental Response to Harman Interrogatory No. 14); (Tab 8, filed under seal, RITTMUELLER 173).

**MIT'S RESPONSE:**

See response to Harman's SOF 13.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

Moreover, the implication that MIT gives regarding the fact that the July 1989 quarterly report states that the NEC position sensor "arrived only during the final weeks of the project" is misplaced. This statement is vague as to time, and MIT's inference that this meant the position sensor was not in the system before the critical date is belied by the undisputed facts which show that by at least June 1989 the "research prototype" in use by the inventors met every limitation of Claims 1, 42, and 45. *See* Harman's SOF Nos. 6-9, 14-15, 28-33, 35-3.; *see also* MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) ("Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed **and direction sensors**. To compensate for error, it uses map matching on a map database stored in CD ROM. The system is described more fully in [The Ono Paper]. The Back Seat Driver is already working in prototype form" (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at "System Overview" (dated June 1989) ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. It is further described in [The Ono Paper].")

Exh. 9 at 176 which MIT relies upon to support this inference says nothing more than that the inventors had “found several difficulties with the design and operation of the Navigation System. We will describe these in detail in a letter to follow shortly, as part of our work under the Extension to the current contract.” That “Extension” dealt primarily with the task of moving the computer system from the Media Lab into the car as the position sensor was already installed, and had been used, in the car by that time. *See* (Docket Entry No. 160, Exhibit 4).

**B. Claim 1 Was Reduced to Practice At Least As Early As June, 1989.**

**HARMAN'S STATEMENT OF FACT NO. 15:**

The subject matter recited in claim 1 of the ‘685 patent was reduced to practice at least as early as June 1989. (Tab 3, MIT’s June 16, 2006 Supplemental Response to Harman Interrogatory No. 14.)

**MIT'S RESPONSE:**

MIT disputes Harman’s attempt to couch a legal conclusion as a fact. Whether the invention of claim 1 was “reduced to practice” is not dispositive of a statutory bar under § 102(b), which requires the invention to be “in public use” and “ready for patenting.” *See Mannville Sales*, 917 F.2d at 551; *EZ Dock*, 276 F.3d at 1353. MIT has shown that the invention of claim 1 was not in public use based on the experimental circumstances surrounding field trials that occurred during the summer of 1989.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT’s comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT admits that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

**HARMAN'S STATEMENT OF FACT NO. 16:**

Prior to uses of the Back Seat Driver system on public streets in June and July 1989, Mr. Davis already knew that the Back Seat Driver would work for its intended purpose. (Tab 9, Davis Dep. at 168:7-18 (noting that Mr. Davis was first certain “[s]ometime prior to June of 1989”).)

**MIT'S RESPONSE:**

MIT disputes this statement of fact and inferences Harman seeks to draw from it. Both Dr. Davis and Mr. Schmandt testified that they were not “certain” the Back Seat Driver would work, but that they were “confident” that the system would work by the end of the summer. MIT’s SOF 41, *supra*. MIT disputes Harman’s conclusion that field trials constituted “uses” under the patented invention under § 102(b), which MIT has shown that they are not under *Invitrogen*. *See also* Response to Harman’s SOF 11.

**HARMAN’S REPLY:**

No genuine issue of material fact relevant to Harman’s motion. MIT does not dispute this statement of fact. MIT’s assertion that the inventors were merely “confident” that the system would work is a distinction without a difference. Indeed, when the inventors became “‘certain’ the Back Seat Driver would work” is irrelevant to this motion since MIT admits that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

Similarly irrelevant, MIT’s SOF 41 deals with when MIT contends Davis believed the “Back Seat Driver was perfected.” Reduction to practice only requires that the inventors be reasonably confident that the invention will work for its intended purpose. *See Eaton v. Evans*, 204 F.3d 1094, 1097 (Fed. Cir. 2000) (noting that an invention is reduced to practice when the patentee has an embodiment that meets every limitation and operates for its intended purpose). MIT admits that this occurred for Claims 1, 42 and 45 by at least June 1989. *See* Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

**HARMAN’S STATEMENT OF FACT NO. 17:**

Prior to uses of the Back Seat Driver system on public streets in June and July 1989, Mr. Davis was already publicly claiming that the Back Seat Driver was a working system. (Tab 9, Davis Dep. at 168:7-18 (noting that “by June of 1989, I was already claiming that it was a working system.”); *see also* (Tab 6, MIT 1101-1102 (submitted prior to but published in June 1989, and noting that “[t]he Back Seat Driver is already working.”)).

**MIT’S RESPONSE:**

MIT disputes Harman’s characterization of the IEEE abstract as Dr. Davis “publicly claiming that the Back Seat Driver was a working system,” which is not what the document says. Harman mischaracterizes and misquotes the document on which Dr. Davis’ testimony was based. The document, which is the June 1989 IEEE abstract (Docket No. 146-13), states that the system “is already working in prototype form.” The “prototype form” of the Back Seat Driver that Harman appears to be referring to was “Version 2,” which featured a human operator in the car and which does not embody

claim 1 of the '685 patent. MIT disputes Harman's characterizations of the field trials as "uses" of the invention as the term "use" has a legal meaning in this context.

**HARMAN'S REPLY:**

No genuine issue of material fact relevant to Harman's motion. MIT cites no evidence to support its assertions regarding this fact, the June 1989 article speaks for itself.

Moreover, MIT's purported dispute over whether there was a "working system" or a system "working in prototype form" is a distinction without a difference, particularly as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**C. Claim 42 Was Embodied In Prototypes Operated By Drivers On Public Roads Around Boston, More Than One Year Before The Filing Date of the '685 Patent.**

**HARMAN'S STATEMENT OF FACT NO. 18:**

Claim 42 claims "[t]he automobile navigation system of claim 1 wherein each intersection in a route is classified into one type in a taxonomy of intersection types, and the disclosure generated in relation to each said intersection depends on its type." (Tab 1, '685 patent at 32:31-35.)

**MIT'S RESPONSE:**

MIT does not dispute this.

**HARMAN'S STATEMENT OF FACT NO. 19:**

In June, 1989, MIT completed and submitted for publication in the proceedings of the IEEE Vehicle Navigation and Information Systems Conference a paper entitled: "The Back Seat Driver: Real Time Spoken Driving Instructions." ("VNIS '89 Back Seat Driver Paper). (Tab 5, MIT 00938-42); *see also* (Tab 15, HAR 710168 (noting that "camera-ready" copies of submissions for VNIS '89 were due by June 26, 1989).)

**MIT'S RESPONSE:**

MIT does not dispute this.

**HARMAN'S STATEMENT OF FACT NO. 20:**

The VNIS '89 Back Seat Driver Paper describes the Back Seat Driver prototype "running in prototype form since April 1989" and "successfully used by drivers who have never driven in Boston." (Tab 5, at MIT 00938.)

**MIT'S RESPONSE:**

MIT does not dispute that the VNIS '89 Back Seat Driver Paper says, "The system has been running in prototype form since April 1989. It has been successfully used by drivers who have never driven in Boston." However, MIT disputes any inferences Harman seeks to draw regarding the nature of the field trials, which MIT has shown were permissible experimentation and therefore, not "public use." MIT also disputes this statement insofar as Harman has failed to identify which Back Seat Driver prototype version the VNIS '89 paper refers to.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Harman's SOF contains direct quotes from the June 1989 document, it speaks for itself. Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**HARMAN'S STATEMENT OF FACT NO. 21:**

The working prototype system described in the VNIS '89 Back Seat Driver Paper included a taxonomy of intersection types, including the intersection types enter, exit, and fork and "[t]he items in the taxonomy of intersection types are called **acts**." (Tab 5, at MIT 00939 (emphasis in the original).)

**MIT'S RESPONSE:**

MIT does not dispute that the VNIS '89 Back Seat Driver Paper says, "The items in the taxonomy of intersection types are called **acts**." However, MIT disputes any inferences Harman seeks to draw from this statement insofar as Harman implies that the taxonomy was not changed in response to the field trials.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Harman's SOF contains direct quotes from the VNIS document, it speaks for itself. In addition, the inventors' undocumented changes to unclaimed details of the system are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.*

**HARMAN'S STATEMENT OF FACT NO. 22:**

The working prototype system described in VNIS '89 Back Seat Driver Paper considered every connection from one segment in a route to the next segment to be an intersection. (Tab 5, at MIT 00939.)

**MIT'S RESPONSE:**

MIT does not dispute that the VNIS '89 Back Seat Driver Paper says, "We consider every connection from one segment to another as an 'intersection', even if there is only one next segment at the intersection." However, MIT disputes any inferences Harman seeks to draw regarding the nature of the field trials, which MIT has shown are permissible experimentation and therefore, not "public use."

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Harman's SOF contains direct quotes from the VNIS document, it speaks for itself. In addition, as a matter of law there can be no experimentation since the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See '685 Patent*

at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

#### **HARMAN'S STATEMENT OF FACT NO. 23:**

The working prototype system described in VNIS '89 Back Seat Driver Paper relied upon the taxonomy of intersection types to describe intersections. (Tab 5, at MIT 00939.)

#### **MIT'S RESPONSE:**

MIT does not dispute that the VNIS '89 Back Seat Driver Paper says, "Based on a study of how people naturally give spoken driving instructions, we developed a taxonomy of intersection types (Figure 2). This taxonomy is necessary in order to describe an intersection in the same way that a person would." MIT disputes any inferences Harman seeks to draw regarding the nature of the field trials, which MIT has shown are permissible experimentation and therefore, not "public use." MIT disputes this statement of fact as vague insofar as it refers to the Back Seat Driver "relying" on anything.

#### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Harman's SOF contains direct quotes from the VNIS document, it speaks for itself. In addition, as a matter of law there can be no experimentation since the only relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used that vehicle in public through July 1989. See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

#### **HARMAN'S STATEMENT OF FACT NO. 24:**

In the working prototype system described in VNIS '89 Back Seat Driver Paper, a corresponding expert existed for each act, which experts "generate text which describes the intersection." (Tab 5, at MIT 00939.)

#### **MIT'S RESPONSE:**

MIT does not dispute that the VNIS '89 Back Seat Driver Paper says, "for each act there is a corresponding 'expert'...each expert is able to generate text which describes

the intersection.” However, MIT disputes any inferences Harman seeks to draw regarding the nature of the field trials, which MIT has shown are permissible experimentation and therefore not “public use.”

#### **HARMAN’S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT’s comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Harman’s SOF contains direct quotes from the VNIS document, it speaks for itself. In addition, as a matter of law there can be no experimentation since the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* ’685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

#### **HARMAN’S STATEMENT OF FACT NO. 25:**

The “Direction Assistance” project was an earlier research project by Davis and Schmandt, that evolved into the “Back Seat Driver” project that led to the ’685 patent. Tab 10, Schmandt Dep. at 29:10-21); (Tab 30, STREETER 219); (Tab 6, MIT 1101-1102 (noting “The generation of easy [sic] followed natural descriptions requires more extensions. We added a number of new segment types to distinguish bridges, underpasses, tunnels, *rotaries*, and *access ramps*. All these extensions were done for an earlier route finding project” (emphasis added) (citing James R. Davis and Thomas Trobaugh, *Direction Assistance*, Technical Report 1, MIT Media Laboratory Speech Group, Dec. 1987)); (Tab 20, Davis website at <http://www.econetwork.net/~jdavis/> (noting “In 1985 I entered the doctoral program at the Media Lab. My main pieces of work there were *Direction Assistance* (which gives spoken driving instructions over the telephone) and *Back Seat Driver* (which does the same thing in a car while you’re driving.”)); (Tab 16, filed under seal, MIT 06769-73 June 15, 1988 Back Seat Driver Research Proposal (noting the Direction Assistance as [[REDACTED]]))

#### **MIT’S RESPONSE:**

MIT denies this statement of fact and inferences that Harman seeks to draw from it. Mr. Schmandt was not involved in the “Direction Assistance” work. Exh. 8 at 148:8-13 (“Direction Assistance was Jim Davis’s program and has been published under his name. It [MIT1370-85] also references Grunt, which is a program that I had written and had been published under my name. Up to that point, I had, our work on these two projects was separate.”) The “Direction Assistance” program is irrelevant to whether the “Back Seat Driver” was in public use, and MIT disputes Harman’s attempt to equate

“Direction Assistance” and “Back Seat Driver.” MIT denies that “Direction Assistance” “evolved” into the “Back Seat Driver” and the inferences Harman seeks to draw therefrom. “Direction Assistance” was a static, direction-giving program; the “Back Seat Driver” was a real-time automobile navigation system. Exh. 2 at 108; Exh. 1 at 1:59-62. Moreover, Dr. Davis testified that, in addition to including elements not found in “Direction Assistance,” the “discourse generator” of the “Back Seat Driver” was significantly different from “Direction Assistance”. Exh. 10 at 215:6-216:5:

Q: Let me just clear this up. At the time the ‘Direction Assistance’ display was installed in the Boston Computer Museum, did it have a discourse generator?

MR BAUER: Objection. Undefined term. By what definition, Mr. Leavell?

Q: You can answer sir.

A: The ‘Direction Assistance’ program produces one kind of text. It doesn’t produce real time text. It has a discourse generator, and it is a different discourse generator than ‘The Back Seat Driver.’

Q: But did it have a discourse generator when it was first installed in the computer museum?

MR BAUER: Objection. An undefined term.

A: There are two kinds of discourse generators we are talking about here.

Q: Understood.

A: I think you could – from the standpoint of discourse generator as I intended it in ‘685, no, it didn’t have a discourse generator.

Q: Why not?

A: Because it wasn’t doing real time discourse. This was a different kind of discourse.

#### **HARMAN’S REPLY:**

No genuine issue of material fact relevant to Harman’s motion. MIT does not dispute that the “Direction Assistance” project evolved into the “Back Seat Driver” project. The fact that Schmandt was not involved directly in Direction Assistance is not relevant to this motion, as Davis was directly involved with both.

The undisputed evidence shows that while these were separate research projects, they were directly related. (Docket Entry No. 154, Exhibit 10) at 29:10-21; (Docket Entry No 154, Exhibit 30) at STREETER 219; (Docket Entry No. 154, Exhibit 6) at MIT 1101-1102 (noting “The generation of easy [sic] followed natural descriptions requires more extensions. We added a number of new segment types to distinguish bridges, underpasses, tunnels, rotaries, and access ramps. *All these extensions were done for an earlier route finding project*” (emphasis added) (citing James R. Davis and Thomas Trobaugh, *Direction Assistance*, Technical Report 1, MIT Media Laboratory Speech Group, Dec. 1987)); (Docket Entry No. 154, Exhibit 20) (noting “In 1985 I entered the doctoral program at the Media Lab. My main pieces of work there were *Direction Assistance* (which gives spoken driving instructions over the telephone) and *Back Seat Driver* (which does the same thing in a car while you’re driving.”); (Docket Entry No. 154, Exhibit 16 (filed under seal)) at MIT 06769-73 (noting the *Direction Assistance* as [[REDACTED]]).

Moreover, because these projects were related, certain parts of *Direction Assistance* were carried over into the *Back Seat Driver*. *Id.* These *Direction Assistance* features are relevant because it establishes when these features existed in the *Back Seat Driver*, reaffirming MIT’s admission that Claims 1, 42, and 45 were reduced to practice by at least June 1989. See Harman’s SOF 27.

#### **HARMAN’S STATEMENT OF FACT NO. 26:**

By 1987, a *Direction Assistance* system was in public use at the Computer Museum in Boston, and another system was also in public use as part of the Age of Intelligent Machines exhibit traveling across the United States. (Tab 17, *Direction Assistance* paper at “Introduction”.)

#### **MIT’S RESPONSE:**

MIT denies this fact insofar as “public use” has a legal meaning in this context. Unlike the “*Direction Assistance*” program, the “*Back Seat Driver*” system was never displayed at the Boston Computer Museum, any other museum, or as part of the Age of Intelligent Machines exhibit. As such, nothing about any display at the Boston Computer Museum of “*Direction Assistance*” can support an inference that the *Back Seat Driver* was in the public domain or that the public would reasonably believe that it was. The “*Direction Assistance*” program is irrelevant to whether the “*Back Seat Driver*” itself, as embodied in the claims of the ’685 patent, was in public use, and MIT disputes Harman’s attempt to equate “*Direction Assistance*” and “*Back Seat Driver*.” See also Response to Harman’s SOF 25.

#### **HARMAN’S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT’s comments regarding

any other issue provide no basis for any conclusion other than to deem this fact admitted.

As for the relevance of Direction Assistance, *see* SOF 25 and 27, incorporated herein by reference.

#### **HARMAN'S STATEMENT OF FACT NO. 27:**

The following subject matter was present in a Direction Assistance system that was in public use in 1987:

- A taxonomy of intersection types, including at least the following intersection types: enter, exit, and fork. (Tab 17, “Direction Assistance” by J. R. Davis and T. F. Trobaugh at page 9 (STREETER 00532).)
- Breaking down a route into a “sequence of *acts* to be taken in following the path.” (Tab 17, at STREETER 00531.)
- “For each act...a corresponding routine which generates one to three sentences describing it.” (Tab 17, at STREETER 00534.)
- A taxonomy of turns, a taxonomy of intersection types, and generating discourse in relation to each intersection depending on the type of intersection. (Tab 9, Davis Dep. at 229:4-11 (Q. As it was installed in 1987, did it have that ability? A. It had a taxonomy of turns, yes. Q. And a taxonomy of intersection types? A. Yes. Q. And the discourse generated in relation to each intersection depended on its type? A. That’s correct.”).)

#### **MIT'S RESPONSE:**

See response to Harman's SOF 26. MIT does not dispute that the “Direction Assistance” paper “shows our taxonomy of acts,” or that the “Direction Assistance” paper says, “The output of the Route Finder is a *path*...The Describer creates a new representation of the route, instead of using the path itself...The Describer’s structure is a *tour*, which is a sequence of *acts* to be taken in following the path,” and, “For each act there is a corresponding routine which generates one to three sentences describing it.” Dr. Davis clarified, and Harman omits, during his deposition testimony:

Q: And as the ‘Direction Assistance’ was installed in the Boston computer museum, the taxonomy of intersection types included continue, forced turn, U-turn, enter, exit, onto rotary, stay on rotary, exit rotary, fork, turn and stop, correct?

A: Are you reading from the ‘Direction Assistance’ paper?

Q: I read that from claim 43 of the patent.

A: Okay. Without checking more carefully, it's difficult to say. The taxonomy did change over time as I learned better how turns ought to be described. So I could not testify under oath that the taxonomy was identical in those two systems. In fact, I would be more inclined to testify that they changed.

Exh. 10 at 229:12-230:3. *See also* Response to Harman's SOF 25.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Harman's SOF 27 comes directly from articles written about Direction Assistance by Davis, they speak for themselves. In addition, the inventors' undocumented changes to unclaimed features of the system are irrelevant to this motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**D. Claim 42 Was Reduced to Practice At Least As Early As June 1989.**

**HARMAN'S STATEMENT OF FACT NO. 28:**

On April 27, 2006, MIT admitted that the subject matter of claim 42 was reduced to practice "at least as early as June 1989," noting that "[t]he details of the reduction to practice were fully described in answer to numerous questions to the inventors propounded during the deposition testimony" of the named inventors, and that "those [deposition] answers are herein incorporated by reference" into MIT's interrogatory response. (Tab 18, MIT's April 27, 2006 First Supplemental Response to Interrogatory No. 14.)

**MIT'S RESPONSE:**

MIT does not dispute that MIT supplemented its discovery responses on April 27, 2006, but disputes any inferences Harman seeks to draw from this statement of fact. MIT disputes Harman's paraphrasing and mischaracterization of MIT's discovery responses.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

**HARMAN'S STATEMENT OF FACT NO. 29:**

On May 2, 2006, MIT provided a supplemental interrogatory response, again admitting that claim 42 was reduced to practice "at least as early as June 1989." (Tab 19, MIT's May 2, 2006 Second Supplemental Response to Interrogatory No. 14.) In this supplemental response, MIT cited to nearly 600 pages of documentation and nearly 60 pages of inventor deposition testimony to support its response.

**MIT'S RESPONSE:**

MIT does not dispute that MIT supplemented its discovery responses on May 2, 2006, but disputes any inferences Harman seeks to draw from this statement of fact. MIT disputes Harman's paraphrasing and mischaracterization of MIT's discovery responses.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

**HARMAN'S STATEMENT OF FACT NO. 30:**

Included within the documents MIT cited on May 2, 2006 as supporting its admission that claim 42 was reduced to practice "at least as early as June 1989" were MIT 933-937, MIT 938-42, MIT 1101-02, MIT 2245-54, MIT 2255-63 and MIT 2264-74. Each of these papers describes a working system at least as early as June 1989, and several describe a working system by that time that includes the subject matter of claim 42:

- MIT 00938 (VNIS '89 Back Seat Driver Paper) notes that "The system has been running in prototype form since April 1989 ... and [t]his paper describes the strategies employed by the Back Seat Driver to successfully use speech." The system is described as relying on a taxonomy of acts, or intersection types. MIT 00938. The text generated depends on the intersection type. MIT 00939. (Tab 5.)

- MIT 02245 (“Abstract”) notes that “[t]his paper describes the strategies employed by the Back Seat Driver to successfully use speech.” MIT 02245. “The system has been running in prototype form since April 1989. It has been successfully used by drivers who have never driven in Boston.” MIT 02246. The system is described in this document as relying on a taxonomy of acts, or intersection types. MIT 02247. The text generated depends on the intersection type. MIT 02248. (Tab 21.)
- MIT 02264 describes “Direction Assistance” as “an interactive program that provides spoken directions for automobile travel” and further describes its reliance on a taxonomy of acts, including the intersection types enter, exit and fork, and how text is generated accordingly for each act. MIT 02264, 68-70. (Tab 23.)
- MIT 02255 “A Voice Interface To A Direction Giving Program” describes Direction Assistance as “a program which provides high quality directions for driving between two points in the Boston area.” MIT 02255. The Direction Assistance system is described as relying on “a sequence of actions.” MIT 02260. (Tab 22.)
- MIT 00933 “Synthetic Speech for Real Time Direction-Giving,” notes: “[a]t the time of this writing (June 1989) we have a working system on the road” and describing the system as generating “a series of travel segments ... separated by decision points.” MIT 00935. (Tab 11.)
- MIT 01101 (“Synthetic Speech For Real Time Direction-Giving”) notes that “[t]he Back Seat Driver is already working in prototype form.” (Tab 6.)

#### **MIT'S RESPONSE:**

MIT does not dispute that MIT supplemented its discovery responses on May 2, 2006, but disputes any inferences Harman seeks to draw from this statement of fact. MIT also disputes Harman’s reliance upon statements made in papers authored by Davis and/or Schmandt that do not identify which version of a Back Seat Driver prototype is referred to in the papers. MIT also disputes any inferences Harman seeks to draw from its reliance on papers relating to the “Direction Assistance” program, which is a static, direction-giving program and is not a realtime automobile navigation system like “Back Seat Driver.” MIT also disputes any inferences Harman seeks to draw from Direction Assistance, which is irrelevant. MIT also disputes mischaracterizations of the documents relied upon and Harman’s characterization of the papers as “describing” a “working system.”

#### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT's comments regarding

any other issue provide no basis for any conclusion other than to deem this fact admitted.

At any rate it was MIT, not Harman, who identified these documents as supporting the June 1989 date of the reduction to practice, so any inference to be had here that these documents support that date of reduction to practice was originally MIT's, with which Harman agrees.

In addition, Direction Assistance evolved into the Back Seat Driver and those features which carried over from the original system are relevant to this motion. *See* Harman's SOF 25, 27.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

#### **HARMAN'S STATEMENT OF FACT NO. 31:**

Included within the inventor testimony MIT cited on May 2, 2006 as supporting its interrogatory response that claim 42 was reduced to practice "at least as early as June 1989" were pages 81-82 and pages 228-229 of Davis' deposition transcript, which respectively discuss an article written in June, 1989 that describes the Back Seat Driver ("Synthetic Speech For Real Time Direction-Giving" (MIT 933-37) (Tab 11)), and the Direction Assistance program installed in the Boston Computer Museum in 1987, which included a taxonomy of intersection types used to generate discourse. (Tab 19, MIT's May 2, 2006 Second Supplemental Response to Interrogatory No. 14); (Tab 9, Davis Dep. at 81-82, 228-229).

#### **MIT'S RESPONSE:**

See Response to Harman's SOF 30.

#### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

At any rate it was MIT, not Harman, who identified these documents as supporting the June 1989 date of the reduction to practice, so any inference to be

had here that these documents support that date of reduction to practice was originally MIT's, with which Harman agrees.

Direction Assistance evolved into the Back Seat Driver and those features which carried over from the original system are relevant to this motion. *See* Harman's SOF 25, 27, incorporated herein by reference.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

#### **HARMAN'S STATEMENT OF FACT NO. 32:**

On June 16, 2006, MIT amended its response to Interrogatory No. 14 to contend that the subject matter of claim 42 was reduced to practice on August 4, 1989. (Tab 3, MIT's June 16, 2006 Supplemental Response to Interrogatory No. 14.) The only additional evidence cited by MIT to support this change in position (beyond the evidence cited in its earlier response, which said claim 42 was reduced to practice "at least as early as June 1989") was Mr. Schmandt's 30(b)(6) deposition testimony. *Compare* (Tab 3, MIT's June 16, 2006 Supplemental Response to Interrogatory No. 14), *with* (Tab 19, MIT's May 2, 2006 Second Supplemental Response to Interrogatory No. 14).

#### **MIT'S RESPONSE:**

MIT does not dispute that on June 16, 2006, MIT amended its response to Interrogatory No. 14 but disputes any inferences Harman seeks to draw from this statement of fact.

#### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

#### **HARMAN'S STATEMENT OF FACT NO. 33:**

During his 30(b)(6) deposition testimony, Schmandt testified as MIT's 30(b)(6) witness that he did not know when the subject matter of claim 42 was reduced to practice. (Tab 7, Schmandt 30(b)(6) Dep. at pp. 70-73) The reason Mr. Schmandt gave for not knowing whether

claim 42 was reduced to practice “at least as early as June 1989,” as MIT has previously stated in its response to Interrogatory No. 14, was that “we have no documentation that tells us when those features were added to the system.” (Tab 7, Schmandt 30(b)(6) Dep. at p. 72:6-13.) However, as shown above in SOF 30 and 31, documents cited by MIT demonstrate that the subject matter of claim 42 was reduced to practice at least as early as June 1989 (if not by April 1989) as admitted by MIT in its prior interrogatory responses.

**MIT'S RESPONSE:**

MIT disputes this statement of fact. Harman mischaracterizes MIT's Rule 30(b)(6) testimony, which did not involve the legal conclusion of whether the invention of claim 42 was “reduced to practice.” Mr. Schmandt testified that the subject matter of claim 42 was implemented at least as early as August 4, 1989. Moreover, as MIT's Rule 30(b)(6) witness, Mr. Schmandt testified that the version of the Back Seat Driver embodied in Dr. Davis' thesis on August 4, 1989, included the subject matter of claim 42. Exh. 11 at 58:18-59:6:

Q: We've marked as 92, your handwritten list. And what that indicates is which claims were present in the Back Seat Driver as it existed as an actual working prototype as of August 4th, 1989, and had by that time successfully guided drivers unfamiliar to Cambridge to their destinations. Those claims that fall within that are listed as Yes on your list; is that correct?

A: That's correct.

Q: And which claims are those, according to your list?

A: ... 40 through 49 inclusive....

Moreover, MIT clarified that the features of claims 42 and 45 were not necessarily present in the “Direction Assistance” program. Exh. 11 at 72:6-23:

Q: Right. The question is: Did the Back Seat Driver, as it existed as a working prototype in field trials in June of 1989, include the subject matter of Claims 42 through 49?

A: We don't know.

Q: Why not?

A: Because we have no documentation that tells us when those features were added to the system.

Q: If those features were included in the database of the Direction Assistance Program, is it reasonable to assume they were carried over to the Back Seat Driver system?

MS. MOTTLEY: Same objections.

A: No, it is not.

Q: Why not?

MS. MOTTLEY: Same objections.

A: Because these aren't – these claims don't apply to databases. They apply to what's spoken.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's assertion that "Mr. Schmandt testified that the subject matter of claim 42 was 'reduced to practice'" is contrary to his testimony where Schmandt testified that he did not know when Claim 42 was implemented. (Docket Entry No. 154, Exhibit 7) at pp. 70-73. The reason Schmandt gave for not knowing whether claim 42 was reduced to practice "at least as early as June 1989," as MIT has previously stated in its response to Interrogatory No. 14, was that [[REDACTED]] (Docket Entry No. 154, Exhibit 7) at p. 72:6-13.

Exh. 11 at 58:18-59:6 is Schmandt's 30(b)(6) testimony that Claim 42 was implemented by August 4, 1989 and does not address the June 1989 date. MIT's Exh. 11 at 72:6-23 is further 30(b)(6) testimony by Schmandt which MIT relies on to support its assertion that "features of claims 42 and 45 were not necessarily present in the 'Direction Assistance' program," does not support that assertion. Indeed, the following six lines of testimony belie MIT's statement because Schamndt testified on behalf of MIT that he [[REDACTED]] See (Docket Entry No. 160, Exhibit 7) at 72:24-73:5.

As noted above in Harman's (undisputed) Statements of Fact 25 and 27, the Direction Assistance had "segment types to distinguish bridges, underpasses, tunnels, rotaries, and access ramps" and those intersection types, which are the focus of claim 42 of the '685 patent, were carried over from Direction Assistance at the beginning of the Back Seat Driver project in April 1988, as evidenced by MIT's admitted date of conception of claim 42 "at least as early as April 1988." See (Docket Entry No. 154, Exhibit 19) at 2.

**E. Claim 45 Was Embodied In Prototypes Operated By Drivers On Public Roads Around Boston, More Than One Year Before The Filing Date of the '685 Patent.**

**HARMAN'S STATEMENT OF FACT NO. 34:**

Claim 45 claims “[t]he automobile navigation system of claim 1 wherein said discourse generated comprises a long description of an act given substantially before the act is to be performed and a short description given at the time the act is to be performed.” (Tab 1, ’685 patent at 32:46-50.)

**MIT'S RESPONSE:**

MIT does not dispute this.

**HARMAN'S STATEMENT OF FACT NO. 35:**

The subject matter of claim 45 was present in a Back Seat Driver prototype “running in prototype form since April 1989” and “successfully used by drivers who have never driven in Boston.” (Tab 5, VNIS ‘89 Back Seat Driver Paper (MIT 00938).) In particular, the VNIS ‘89 Back Seat Driver Paper describes “the strategies employed by the Back Seat Driver to successfully use speech” including, at least under MIT’s construction, the subject matter of claim 45 of the ’685 patent. (Tab 5, MIT 00938.) For example:

- This prototype system included the limitations of defendant claim 1 [*sic*] as discussed above.
- This working prototype further gave “instructions just prior to the action. It also gives instructions further in advance, if time permits.” (Tab 5, VNIS ‘89 Back Seat Driver Paper (MIT 00940).)
- The prototype “gives the instructions twice, first in a detail, and later in a brief form.” (Tab 5, VNIS ‘89 Back Seat Driver Paper (MIT 00938).)

**MIT'S RESPONSE:**

MIT disputes this statement of fact and any inferences Harman seeks to draw from this statement of fact. MIT disputes this statement of fact insofar as the claims have not yet been construed. MIT disputes Harman’s claim that “the prototype system included the limitation of [independent] claim 1 as discussed above,” which Harman has not shown.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT’s comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Harman's SOF contains direct quotations from the VNIS article, which speak for themselves.

In addition, for the purposes of this motion, Harman takes MIT at its word that claim 45, properly construed, covers second, shorter instructions that are merely "near" (rather than "at") the place to act, and the underlying contemporaneous documents demonstrate that such subject matter was present and reduced to practice in the relevant, pre-critical date uses. Regardless, MIT's assertions are moot because the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

#### **F. Claim 45 Was Reduced to Practice At Least As Early as June 1989.**

##### **HARMAN'S STATEMENT OF FACT NO. 36:**

On April 27, 2006, MIT admitted that the subject matter of claim 45 was reduced to practice "at least as early as June 1989," again noting that "the details of the reduction to practice were fully described in answer to numerous questions to the inventors propounded during the deposition testimony" of the named inventors, and that "those [deposition] answers are herein incorporated by reference" into MIT's interrogatory response. (Tab 18, MIT's April 27, 2006 First Supplemental Response to Interrogatory No. 14.)

##### **MIT'S RESPONSE:**

MIT does not dispute that MIT supplemented its discovery responses on April 27, 2006, but disputes any inferences Harman seeks to draw from this statement of fact.

##### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

##### **HARMAN'S STATEMENT OF FACT NO. 37:**

On May 2, 2006, MIT provided a supplemental interrogatory response, which re-iterated that claim 45 was reduced to practice "at least as early as June 1989." (Tab 19, MIT's May 2, 2006 Second Supplemental Response to Interrogatory No. 14.) In this supplemental response,

MIT cited to nearly 600 pages of documentation and nearly 60 pages of inventor deposition testimony to support its response.

**MIT'S RESPONSE:**

MIT does not dispute that MIT supplemented its discovery responses on May 2, 2006, but disputes any inferences Harman seeks to draw from this statement of fact.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

**HARMAN'S STATEMENT OF FACT NO. 38:**

Included within the documents MIT cited on May 2, 2006 as supporting its interrogatory response that claim 45 was reduced to practice "at least as early as June 1989" were MIT 933-937, MIT 938-42, MIT 1101-02, and MIT 2245-54. Each of these papers describes the working prototype:

- MIT 00933-37 "Synthetic Speech for Real Time Direction-Giving," notes: "[a]t the time of this writing (June 1989) we have a working system on the road" (Tab 11, MIT 00935.)
- MIT 00938-42 (VNIS '89 Back Seat Driver Paper) "The Back Seat Driver: Real Time Spoken Driving Instructions" noting that "[t]he system has been running in prototype form since April 1989 ... and [t]his paper describes the strategies employed by the Back Seat Driver to successfully use speech." This paper also notes "... the program gives the instruction twice, first in a detail, and later in a brief form." (Tab 5, MIT 00938; *see also* SOF 35.)
- MIT 01101-01102 "Synthetic Speech For Real Time Direction-Giving" noting that "[t]he Back Seat Driver is already working in prototype form." (Tab 6, MIT 01101-01102 at "Summary" (paper was presented at the June 6-9, 1989 International Conference of Consumer Electronics, in Rosemont, Illinois.)
- MIT 02245 "Abstract" noting that "[t]his paper describes the strategies employed by the Back Seat Driver to successfully use speech." MIT 02245. "If the time between instructions is long, the program gives the instruction twice, first in a detail and later in a brief form." MIT 02246. "The system has been running in prototype form since April 1989. It has been successfully used by drivers who have never driven in Boston." (Tab 21, MIT 02246.)

**MIT'S RESPONSE:**

MIT does not dispute that MIT supplemented its discovery responses on May 2, 2006, but disputes any inferences Harman seeks to draw from this statement of fact. MIT disputes Harman's characterization of the papers as "describing" a "working system" or "working prototype" without demonstrating which version of the Back Seat Driver.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

At any rate it was MIT, not Harman, who identified these documents as supporting the June 1989 date of the reduction to practice, so any inference to be had here that these documents support that date of reduction to practice was originally MIT's, with which Harman agrees.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**HARMAN'S STATEMENT OF FACT NO. 39:**

On June 16, 2006 MIT amended its response to Interrogatory No. 14 to contend that the subject matter of claim 45 was not reduced to practice until August 4, 1989. (Tab 3, MIT's June 16, 2006 Resp. to Interrog. No. 14). As true of claim 42, in support of its change of position, the only additional evidence cited by MIT (beyond that already cited in its earlier response, which said claim 45 was reduced to practice 'at least as early as June 1989') was Mr. Schmandt's 30(b)(6) deposition testimony. (Tab 3, MIT's June 16, 2006 Resp. to Interrog. No. 14.) However, Mr. Schmandt testified under oath as MIT's 30(b)(6) that he did not know whether or not the subject matter of claim 45 was already reduced to practice as least as early as June 1989. (Tab 7, Schmandt 30(b)(6) Dep. at pp. 70-73.) The reason Mr. Schmandt gave for not knowing whether claim 45 was reduced to practice "at least as early as June 1989," as MIT has previously stated in its response to Interrogatory No. 14, was that "we have no documentation that tells us when those features were added to the system." (Tab 7, Schmandt 30(b)(6) Dep. at p. 72:6-13.) However, as shown above in Facts 35 and 38 above, documents do tell us that the subject matter of claim 45 was present in the system at least as early as June 1989.

**MIT'S RESPONSE:**

MIT does not dispute that on June 16, 2006, MIT amended its response to Interrogatory No. 14. MIT disputes Harman's implication that MIT changed or amended its discovery responses in responses to invalidity positions forwarded by Harman. Harman mischaracterizes MIT's Rule 30(b)(6) testimony, which did not involve the legal conclusion of whether the invention of claim 45 was "reduced to practice."

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's 30(b)(6) testimony is quoted in Harman's SOF, and it speaks for itself.

**G. None Of The Uses Of The Back Seat Driver System Were Subject To Any Confidentiality – To The Contrary, MIT's Policies And Goals Were To Publicize Them (And The Project) As Much As Possible, And MIT Did Exactly That.**

**HARMAN'S STATEMENT OF FACT NO. 40:**

At the time of the Back Seat Driver project, MIT had a written policy entitled "Open Research and the Free Interchange of Information," which touted "the profound merits of a policy of open research and free interchange of information among scholars as essential to that responsibility and to the interests of the nation as a whole." (Tab 24, filed under seal, MIT 1346); (Tab 32, Davis website at <http://www.econetwork.net/~jdavis/Essays/history.html> page 3 of 4 (noting "The other important thing about the Media Lab is the constant focus on demonstrating one's work").)

**MIT'S RESPONSE:**

MIT disputes Harman's reliance on a document that does not specifically relate to the Back Seat Driver research program or the expectations of the research sponsor, which expected the research to be kept "close to the vest." Exh. 22 at 303:3-8.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding

any other issue provide no basis for any conclusion other than to deem this fact admitted.

Exh. 22 at 303:3-8 which is the excerpt of testimony of Rittmueller that MIT relies upon, is belied by Rittmueller's additional deposition testimony where he described the confidentiality surrounding the Back Seat Driver project as "confidential-ish" or "closely held-ish." (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 305:22-306:5.

**HARMAN'S STATEMENT OF FACT NO. 41:**

At the time of the Back Seat Driver project, the MIT Media Lab had a written policy that "the Media Laboratory is an intellectually open environment where ideas are readily exchanged." (Tab 25, filed under seal, MIT 1294.)

**MIT'S RESPONSE:**

See Response to Harman's SOF 40.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Exh. 22 at 303:3-8 which is the excerpt of testimony of Rittmueller that MIT relies upon, is belied by Rittmueller's additional deposition testimony where he described the confidentiality surrounding the Back Seat Driver project as "confidential-ish" or "closely held-ish." (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 305:22-306:5.

**1. MIT Publicized the Back Seat Driver (and Its Uses) at a Conference in Early June, 1989.**

**HARMAN'S STATEMENT OF FACT NO. 42:**

(Tab 6, MIT 01101-02) is a true and correct copy of a printed article entitled "Synthetic Speech for Real time Direction-Giving," authored by Davis and Schmandt ("the June 1989 Back Seat Driver Paper").

**MIT'S RESPONSE:**

MIT does not dispute that MIT1101-02 was authored by Davis and Schmandt. MIT does dispute Harman's characterization of MIT1101-02 as a "printed article" or a

“paper.” MIT1101-02 is an abstract of an article that appeared later in 1989 than the abstract (“the June 1989 abstract”).

**HARMAN’S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT’s comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

**HARMAN’S STATEMENT OF FACT NO. 43:**

The June 1989 Back Seat Driver Paper was presented at the June 6-9 International Conference on Consumer Electronics, in Rosemont, Illinois. (Tab 26, Information Disclosure Statement at p. 1.) The conference presentation and paper were not subject to any confidentiality obligation or restriction. (Tab 38, filed under seal, MIT 30(b)(6) Dep. at 84:2-19.)

**MIT’S RESPONSE:**

See Response to Harman’s SOF 42. MIT disputes any inferences Harman seeks to draw from this statement insofar as it implicates “confidentiality obligation[s] or restriction[s],” which are not determinative of “public use.”

**HARMAN’S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT’s comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

**HARMAN’S STATEMENT OF FACT NO. 44:**

The June 1989 Back Seat Driver Paper was made available and provided to attendees at the International Conference on Consumer Electronics, as pages 288-289 of a larger collection of presentation materials. (Tab 26, Information Disclosure Statement at p. 1); *see also* (Tab 6).

**MIT’S RESPONSE:**

See Response to Harman’s SOF 42.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

**HARMAN'S STATEMENT OF FACT NO. 45:**

The June 1989 Back Seat Driver Paper notes that uses of the Back Seat Driver were taking place on the public streets of Boston. (Tab 6, MIT 1101-1102 at "Abstract," "Goals," and "Summary".)

**MIT'S RESPONSE:**

See Response to Harman's SOF 42. MIT does not dispute that the June 1989 abstract says, "The Back Seat Driver is a research prototype of a system to use speech synthesis as a navigational aid for an automobile equipped with localization equipment. We are evaluating the user interface by field trials." The text of the June 1989 abstract indicates that the prototype was not a finished system and "field trials" were being conducted to test the user interface. MIT disputes this statement insofar as Harman has not shown which version of the Back Seat Driver it refers to.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Harman's SOF 45 contains direct quotes of the June 1989 paper, and speaks for itself. Tellingly, the June 1989 paper does not say that "the prototype was not a finished system" or that the purpose of the "field trials" was "to test the user interface." *See* (Docket Entry No. 154, Exhibit 21).

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

**HARMAN'S STATEMENT OF FACT NO. 46:**

The June 1989 Back Seat Driver Paper publicized several aspects of the system. (Tab 6, MIT 1101-1102.) Specifically:

- The June 1989 Back Seat Driver Paper described an automobile navigation system which produces spoken instructions to direct a driver of an automobile to a destination in real time. (Tab 6, MIT 1101-1102 at “Abstract,” “Goals”.)
- The June 1989 Back Seat Driver Paper described computing apparatus (a Symbolics Lisp computer) for running and coordinating system processes. (Tab 6, MIT 1101-1102 at “System” (describing Symbolics Lisp Machine).)
- The June 1989 Back Seat Driver Paper described driver input (a cellular telephone keypad) (Tab 6, MIT 1101-1102 at “System” (describing a keypad of a cellular phone that serves as the driver’s control unit)).
- The June 1989 Back Seat Driver Paper described a map database connected to the computing apparatus which was extended to explicitly represent legal connectivity(Tab 6, MIT 1101-1102 at “Geographic Database,” “System,” and Figure 2) *see also* (Tab 6, MIT 1101-1102 at cited Reference [2] (the Direction Assistance paper) in this June 1989 Back Seat Driver Paper).
- The June 1989 Back Seat Driver Paper described a position sensing apparatus installed in the automobile and connected to the computing apparatus for providing the computing apparatus data for determining the automobile’s current position. (Tab 6, MIT 1101-1102 at “System” (describing the localization unit built by NEC and the transmission of the position to the Lisp machine).)
- The June 1989 Back Seat Driver Paper described a location system connected to the computing apparatus for accepting data from said position sensing apparatus and for determining the automobile’s current position relative to the map database. (Tab 6, MIT 1101-1102 at “System” (describing the localization unit built by NEC and the transmission of the position to the Lisp machine, and noting that map matching is used).)
- The June 1989 Back Seat Driver Paper described a route-finder connected to the computing apparatus for computing a route to the destination. (Tab 6, MIT 1101-1102 at “System” (“The base station computer does all route planning. . .”).)
- The June 1989 Back Seat Driver Paper described a “real-time system” which generated instructions spoken by a speech synthesizer deciding what to say by comparing the current position against the map. The system delivered “instructions at the proper place and in a timely manner.” (Tab 6, MIT 1101-1102 at “System” and “Discourse Strategies”).

- The June 1989 Back Seat Driver Paper described “[t]he generation of easy followed natural descriptions” through the use of “a number of new segment types to distinguish bridges, underpasses, tunnels, rotaries, and access ramps,” which was done from the earlier Direction Assistance project. (Tab 6, MIT 1101-1102 at “Geographic Database” and cited Reference [2].) As noted and supported in Fact No. 28, in the Direction Assistance project, intersections in a route were classified into one type in a taxonomy of intersection types, and the discourse generated in relation to each said intersection depended on its type. (Tab 17, Direction Assistance paper at pp. 8-10.)
- The June 1989 Back Seat Driver Paper described a speech generator connected to said discourse generator for generating speech from said discourse provided by said discourse generator. (Tab 6, MIT 1101-1102 at “System” (“Speech synthesis is performed in a commercial text-to-speech synthesizer (Dectak) cabled to the Lisp Machine”) and “Discourse Strategies”).
- The June 1989 Back Seat Driver Paper described voice apparatus connected to said speech generator for communicating said speech provided by said speech generator to said driver. (Tab 6, MIT 1101-1102 at “System” (“Synthesized instructions to the driver are related via the second cellular link and a speaker phone in the car”).)

**MIT'S RESPONSE:**

MIT does not dispute that the June 1989 abstract says “The Back Seat Driver is a research prototype of a system to use speech synthesis as a navigational aid for an automobile equipped with localization equipment. We are evaluating the user interface by field trials.” The June 1989 abstract is an abstract and not a “paper” or “printed article.” MIT also disputes the inference Harman seeks to draw that the conference proceedings made the Back Seat Driver “accessible to the public” or “in the public domain.” The text of the June 1989 abstract indicates that the prototype was not a finished system and “field trials” were being conducted to test the user interface. MIT disputes Harman’s attempt to read claim 1 on the June 1989 abstract as claim 1 has yet to be construed by the Court, and if Harman’s proposed constructions are adopted, then claim 1 will not read on the June 1989 abstract.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT’s comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

At any rate it was MIT, not Harman, who identified these documents as supporting the June 1989 date of the reduction to practice, so any inference to be

had here that these documents support that date of reduction to practice was originally MIT's, with which Harman agrees.

Whether there were multiple versions is irrelevant to Harman's motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. *See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.*

#### **HARMAN'S STATEMENT OF FACT NO. 47:**

MIT's own internal Technology Licensing Office forms confirm that a "Public Disclosure" of the Back Seat Driver occurred on June 9, 1989 at the IEEE International Conference on Consumer Electronics. (Tab 27, filed under seal at MIT 5563); *see also* (Tab 28, filed under seal, MIT 5564.)

#### **MIT'S RESPONSE:**

MIT disputes this statement of fact and inferences Harman seeks to draw from it. MIT disputes this statement of fact insofar as it implies the forms were addressing a legal conclusion regarding "public disclosure." It is undisputed that the Back Seat Driver research prototypes were not presented at the conference.

#### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's Technology Licensing Office's form speaks for itself.

#### **2. The Back Seat Driver Uses (and Information Related Thereto) Were Freely Disclosed to Several Third-Parties.**

#### **THE INDUSTRY PRESS**

#### **HARMAN'S STATEMENT OF FACT NO. 48:**

An article entitled "Prototype Guidance Unit Uses Synthetic Speech" was published in *Automotive Electronic News* on July 17, 1989. (Tab 29, HAR 710321 at 22.) This article discusses the "prototype guidance system" which "gives directions in real time" and includes

interview comments from Schmandt, a block diagram provided by the MIT Media Lab, and an example of the text generated by the system at the time. (Tab 29, at 22. (noting that “[t]he system, called the Back Seat Driver, gives directions in real time” and that the “prototype guidance system” . . . “uses speech synthesis as a navigation aid.”)

**MIT'S RESPONSE:**

MIT does not dispute that an article titled “Prototype Guidance Unit Uses Synthetic Speech” appeared in an issue of *Automotive Electronic News* dated July 17, 1989 or that the articles says: “The next step in the Back Seat Driver’s development, according to the researchers, is to determine exactly what a speech guidance system should say, how time and vehicle speed affect the instruction it gives, and what features a map database must have to support the generation of useful spoken instructions.” MIT disputes Harman’s statement of fact and reliance upon statements made in the July 17, 1989 paper that do not identify which version of a Back Seat Driver prototype is referred to. MIT also disputes Harman’s characterization of “the ‘prototype system.’”

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Whether there were multiple versions is irrelevant to Harman’s motion, as the relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used the subject matter of Claims 1, 42, and 45 in public in June and July 1989, after reduction to practice but before the critical date. See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

**NEC**

**HARMAN'S STATEMENT OF FACT NO. 49:**

NEC, the corporate sponsor for the Back Seat Driver project, attended “regular quarterly meetings” with MIT, at which NEC “would see everything that [MIT] had”, “would have seen whatever they wanted” “would have seen the system in its current state of operation,” and “would have seen the software.” (Tab 40, filed under seal, Schmandt Dep. at 95:21-24; 96:1-11.)

**MIT'S RESPONSE:**

MIT does not dispute that NEC sponsored the Back Seat Driver research. MIT disputes the fact that NEC “attended” “regular quarterly meetings.”

**HARMAN'S REPLY:**

No genuine issue of material fact relevant to Harman's motion.

MIT cites no evidence to support its dispute that "NEC 'attended' 'regular quarterly meetings.'" Indeed, MIT's assertion is contrary to the testimony of its 30(B)(6) witness where Schmandt specifically testified that MIT held "regular quarterly meetings with the sponsor." (Docket Entry No. 133, Exhibit 14 (filed under seal)) at 95: 21-22.

**HARMAN'S STATEMENT OF FACT NO. 50:**

MIT did not implement a confidentiality arrangement with NEC. (Tab 40, filed under seal, Schmandt Dep. at 96:15-97:4.)

**MIT'S RESPONSE:**

MIT disputes this statement of fact as vague insofar as it refers to an arrangement being "implemented." MIT also disputes any inferences Harman attempts to draw from this statement because confidentiality agreements or arrangements are not dispositive of the "public use" issue. Formal confidentiality obligations were not necessary between NEC and the inventors because an implied confidentiality obligation existed between MIT and NEC. Exh. 22 at 303:3-8.

**HARMAN'S REPLY:**

No genuine issue of material fact relevant to Harman's motion.

MIT's assertion that there was an "implied confidentiality obligation" between MIT and NEC stands contrary to the very testimony that MIT cites. Exh. 22 at 303:3-8 which is the excerpt of testimony of Rittmueller that MIT relies upon, is belied by Rittmueller's additional deposition testimony where he described the confidentiality surrounding the Back Seat Driver project as "confidential-ish" or "closely held-ish." (Docket Entry No. 150, Exhibit 34 (filed under seal)) at 305:22-306:5.

**HARMAN'S STATEMENT OF FACT NO. 51:**

Mr. Rittmueller (of NEC) was under no obligation to keep the Back Seat Driver project confidential. (Tab 12, filed under seal, Rittmueller Dep. at 302:23-303:2 ([[REDACTED]]); *see also* (Tab 12, filed under seal, Rittmueller Dep. at 306:16-21 ([[REDACTED]]))

**MIT'S RESPONSE:**

See Response to Harman's SOF 50.

**HARMAN'S REPLY:**

No genuine issue of material fact relevant to Harman's motion.

*See* Harman's Response to MIT's SOF No. 50, incorporated herein by reference.

**HARMAN'S STATEMENT OF FACT NO. 52:**

Mr. Rittmueller was present at [[REDACTED]] demonstrations of the Back Seat Driver. (Tab 12, filed under seal, Rittmueller Dep. at 57:21-58:1 ([[REDACTED]]))

**MIT'S RESPONSE:**

See Response to Harman's SOF 50.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

**BELLCORE**

**HARMAN'S STATEMENT OF FACT NO. 53:**

The MIT Media Lab had a relationship with Bellcore such that Bellcore employees "would know what was basically going on on projects." (Tab 13, filed under seal, Streeter Dep. at 15:10-17) MIT sent reports, abstracts and "videotapes of current projects." (Tab 13, filed under seal, Streeter Dep. at 15:18-19; 15:24-16:9.) Mr. Lesk provided at least one Bellcore employee a "running commentary" on the work on the Back Seat Driver. (Tab 13, filed under seal, Streeter Dep. at 15:24-16:9.) At least one abstract sent to Bellcore described the Back Seat Driver. (Tab 13, filed under seal, Streeter Dep. at 15:10-16:9, 16:17-17:1, 37:4-24.)

**MIT'S RESPONSE:**

MIT disputes this statement of fact and any inferences Harman seeks to draw from it insofar as "relationship" is vague and ambiguous. Harman alleges no dates on which any of these alleged facts occurred. MIT disputes the relevance of this statement because reports, abstracts, or videotapes do not amount to public use of the invention. The Bellcore employees identified by Harman, Mike Lesk and Lynn Streeter, recognized an implied duty of confidentiality recognized by professional academic colleagues. Exh.

26 at ¶¶ 3-4, 7-8. Lesk was on Davis' thesis committee and, therefore, would be expected to know the status of Davis' thesis research. Exh. 2 at 5.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's Exh. 26 is Streeter's after-the-fact declaration can not create an issue for trial because it contradicts her earlier deposition testimony, in which she testified that either did not consider the project secret, or had no personal knowledge as to its confidentiality. (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 119:3-5; (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 117:1-11; *see also* (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 37:9-14 ([[REDACTED]]).

Exh. 2 at 5 which MIT also relies upon is the "Acknowledgements" section of Davis' thesis which acknowledges Lesk as a member of the thesis committee. Tellingly, Davis' did not acknowledge Streeter in his thesis even though MIT now claims that she was given a copy of his thesis in her "academic advisory capacity." *See* MIT's Exh. 2 at 5 (Docket Entry No. 160).

**HARMAN'S STATEMENT OF FACT NO. 54:**

At least one Bellcore researcher, Lynn Streeter, received a detailed, 18-page thesis proposal describing the Back Seat Driver project, dated January 1, 1989. (Tab 30, STREETER 0218-235.)

**MIT'S RESPONSE:**

MIT disputes any inferences Harman seeks to draw from this statement of fact. Harman has not shown when Lynn Streeter received the thesis proposal, and an equally valid inference is that Dr. Streeter received the proposal after the critical date. Dr. Streeter understood an implied duty of confidentiality recognized by professional academic colleagues. Exh. 26 at ¶¶ 3-4, 7-8.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding

any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's Exh. 26 is Streeter's after-the-fact declaration can not create an issue for trial because it contradicts her earlier deposition testimony, in which she testified that either did not consider the project secret, or had no personal knowledge as to its confidentiality. (Docket Entry No. 133, Exhibit 16 (filed under seal)) at 119:3-5; (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 117:1-11; *see also* (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 37:9-14 ([[REDACTED]]).

Exh. 2 at 5 which MIT also relies upon is the "Acknowledgements" section of Davis' thesis which acknowledges Lesk as a member of the thesis committee. Tellingly, Davis' did not acknowledge Streeter in his thesis even though MIT now claims that she was given a copy of his thesis in her "academic advisory capacity." *See* MIT's Exh. 2 at 5 (Docket Entry No. 160).

#### **HARMAN'S STATEMENT OF FACT NO. 55:**

At least one Bellcore employee, Michael Lesk, visited the Media Lab "all the time" to discuss current projects at the Media Lab with the MIT faculty. (Tab 13, filed under seal, Streeter Dep. at 15:10-13, 118:8-17.)

#### **MIT'S RESPONSE:**

See Response to Harman's SOF 53.

#### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's Exh., 26 is Streeter's after-the-fact declaration can not create an issue for trial because it contradicts her earlier deposition testimony, in which she testified that either did not consider the project secret, or had no personal knowledge as to its confidentiality. (Docket Entry No. 133, Exhibit 16 (filed under seal) at 119:3-5; Ex. 37 at 117:1-11; *see also* (Docket Entry No. 150, Exhibit 37 (filed under seal)) at 37:9-14 ([[REDACTED]]).

MIT's Exh. 2 at 5 which MIT also relies upon is the "Acknowledgements" section of Davis' thesis which acknowledges Lesk as a member of the thesis committee. Indeed, MIT's assertion that Lesk understood any "implied duty of confidentiality" is belied by the fact that Lesk shared information about the Back

Seat Driver with Streeter. Streeter Dep. at 7:20-8:5 ("Well, the person that I worked with, Michael Leske at Bell Laboratories and Bellcore made frequent visits to MIT and was quite familiar with Jim's work and so would come back and tell us about it and also we got, you know, his thesis the day it was published basically."), 116:11-23 ([[REDACTED]])

#### **HARMAN'S STATEMENT OF FACT NO. 56:**

On at least one trip to the Media Lab, Mr. Lesk was shown the Back Seat Driver system. (Tab 13, filed under seal, Streeter Dep. at 116:7-21.) Mr. Lesk shared what he had learned about the Back Seat Driver with others at Bellcore without requiring any confidentiality. (Tab 13, filed under seal, Streeter Dep. at 15:10-16:9, 119:3-5.)

#### **MIT'S RESPONSE:**

See Response to Harman's SOF 53. Harman has failed to show how this statement of fact relates in any way to the subject matter of its Invalidity Motion, and MIT disputes its relevance. A demonstration of a Back Seat Driver prototype to Mike Lesk, one of Davis' thesis advisors, would not amount to a public use of the invention or lead the public to reasonably believe the invention was in the public domain.

#### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

The sworn testimony of a third-party hired by MIT as an expert in this case establishes Lesk's free sharing of information about the Back Seat Driver project with his BellCore colleagues, and is relevant because it completely refutes MIT's unsupported, litigation-inspired claims of an "implied duty of confidentiality."

#### **HARMAN'S STATEMENT OF FACT NO. 57:**

Bellcore personnel freely shared reports from MIT's Media Lab. (Tab 13, filed under seal, Streeter Dep. at 37:9-14; 37:21-24 ([[REDACTED]]) and ([[REDACTED]]))

#### **MIT'S RESPONSE:**

See Response to Harman's SOF 53. MIT disputes this statement of fact and any inferences Harman seeks to draw from it. Harman has not shown that Bellcore personnel ever shared MIT reports with anyone outside of Bellcore or MIT. Harman has failed to

show how this statement of fact relates in any way to the subject matter of its Invalidity Motion or the Back Seat Driver, and MIT disputes its relevance.

**HARMAN'S REPLY:**

MIT neither disputes this statement of fact nor does it cite any evidence to support its assertions regarding this fact. The sworn testimony of a third-party hired by MIT as an expert in this case establishes Lesk's free sharing of information about the Back Seat Driver project with his BellCore colleagues, and is relevant because it completely refutes MIT's unsupported, litigation-inspired claims of an "implied duty of confidentiality."

**H. At Least Some Of The Public Uses Of The Back Seat Driver Were For Commercial Purposes.**

**HARMAN'S STATEMENT OF FACT NO. 58:**

MIT is a private corporation, with fiscal years and published financial data. (Tab 31, <http://web.mit.edu/facts/financial.html>.) For Fiscal Year 2006, "Sponsored research" accounted for 47.5% of MIT's "Operating Expenditures" or \$1.03 billion.

**MIT'S RESPONSE:**

MIT does not dispute this irrelevant fact, but MIT disputes any inference Harman attempts to draw from it. The fact that MIT is a corporation does not lead to an inference that the Back Seat Driver research was commercially exploited. Harman has not shown how this statement is relevant to the MIT Media Lab, which is where the Back Seat Driver research occurred. Harman has not shown how this statement is relevant to the Back Seat Driver research, which occurred over ten years before the statistic cited in this statement.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

The fact that "Sponsored research" accounted for nearly half of the "Operating Expenditures" for MIT is relevant as it shows the financial value of MIT's sponsors and the importance of MIT maintaining those relationships.

**HARMAN'S STATEMENT OF FACT NO. 59:**

MIT publishes a document entitled "How to Get Value from Media Lab Sponsorships" that notes that sponsors of the Media Lab are entitled to "visit, view, and discuss" "hundreds of working prototypes developed at the Lab," encourages sponsors to "visit the Lab during the year for individual discussions and demonstrations," notes that sponsors are given access to a sponsors-only website that "consolidates technical notes on research projects," and encourages sponsors to use "the Lab as a window to investments and start-ups" in order to get "an inside track on potential opportunities." (Tab 33, HAR 7152-53.)

**MIT'S RESPONSE:**

Harman has failed to show how this statement of fact applied to the Back Seat Driver research or whether this policy was even in place when the Back Seat Driver research was occurring. Harman has not shown that the policies embodied in this document specifically applied to the Back Seat Driver research or research prototypes.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

This document demonstrates MIT's attitude towards sponsors and their role, rights and expectations as a Media Lab sponsor.

**HARMAN'S STATEMENT OF FACT NO. 60:**

NEC provided at least \$400,000 to fund the Back Seat Driver project. (Tab 34, filed under seal, MIT 1370); (Tab 35, filed under seal, MIT 1958.) MIT referred to NEC as a "customer" and one who was "particularly generous." (Tab 36, filed under seal, MIT 07392.)

**MIT'S RESPONSE:**

MIT does not dispute that NEC provided money to sponsor the Back Seat Driver research. MIT disputes any inference Harman seeks to draw from this statement of fact. MIT also disputes Harman's mischaracterization of internal Media Lab correspondence and that this statement of fact is relevant to any issue in Harman's Invalidity Motion. Harman has not shown that NEC was a "customer" in the traditional sense of a commercial offer for sale or contract because NEC would be an eventual licensee of the Back Seat Driver technology.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

The internal email written by the then director of the MIT Media Lab speaks for itself and provides valuable insight into MIT's attitude towards its financial sponsors and the importance MIT attached to maintaining those relationships.

**HARMAN'S STATEMENT OF FACT NO. 61:**

In the 1988-89 time frame, MIT provided information about its research projects, including the Back Seat Driver project, as a way to generate interest from potential sponsors of the Media Lab. (Tab 13, filed under seal, Streeter Dep. at 16:17-19:6 (discussing Back Seat Driver reports and including ([[REDACTED]]))

**MIT'S RESPONSE:**

MIT disputes the relevance of this fact. Harman has not shown to whom such information was provided.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

**I. Much Of The Technology Used In The Back Seat Driver Was Already In The Public Domain In 1987-88.**

**1. Much of the Technology in the Back Seat Driver was Already in use in the Public Domain in 1987, by Virtue of Davis' Earlier Work, Called Direction Assistance.**

**HARMAN'S STATEMENT OF FACT NO. 62:**

The Direction Assistance System produced spoken instructions for directing a driver of an automobile to a destination. (Tab 17, Direction Assistance Paper at, e.g., Abstract ("Direction Assistance is an interactive program that provides spoken direction for automobile travel within

the Boston area. . . . The program has successfully directed newcomers through Boston"); *see also* (Tab 9, Davis Dep. at 220:12-221:15 (generally testifying that the Direction Assistance Paper accurately described what was in public use in the Computer Museum more than one year before the filing of the '685 patent) and 207:5-7.)

**MIT'S RESPONSE:**

MIT disputes this fact and any inferences Harman seeks to draw from it. "Direction Assistance" did not provide directions to a driver of an automobile -- it provided a stationary caller with a complete list of turn-by-turn instructions, like Mapquest, to a destination. Harman's characterization of Direction Assistance implies that Direction Assistance was a navigation system, which it was not. MIT also disputes this fact as irrelevant to the Back Seat Driver, which was an automobile navigation system that provided instructions generated according to a discourse model in real time. The "Direction Assistance" program is irrelevant to whether the "Back Seat Driver" was in public use, and MIT disputes Harman's attempt to equate "Direction Assistance" and "Back Seat Driver." "Direction Assistance" was a static, direction-giving program; the "Back Seat Driver" was a real-time automobile navigation system. Exh. 2 at 108; Exh. 1 at 1:59-62. Moreover, Dr. Davis testified that, in addition to including elements not found in "Direction Assistance," the "discourse generator" of the "Back Seat Driver" was significantly different from "Direction Assistance". Exh. 10 at 215:6-216:5.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's Exh. 2 at 108 and Exh. 1 at 1:59-62, which MIT relies on for this assertion do nothing more than point out respectively that Direction Assistance was a static program and that "the present invention" was called the "Back Seat Driver."

In addition, the portion of Davis' deposition testimony that MIT relies upon only shows that the kind of text produced by the discourse generator differed between the two projects because Direction Assistance was a static program and the Back Seat Driver was real time. *See* MIT's Exh. 10 at 215:6-216:5 (Docket Entry No. 160).

The undisputed evidence shows that while these were separate research projects, they were directly related. (Docket Entry No. 154, Exhibit 10) at 29:10-21; (Docket Entry No 154, Exhibit 30) at STREETER 219; (Docket Entry No. 154, Exhibit 6) at MIT 1101-1102 (noting "The generation of easy [sic] followed natural descriptions requires more extensions. We added a number of new segment types to distinguish bridges, underpasses, tunnels, rotaries, and access

ramps. *All these extensions were done for an earlier route finding project*" (emphasis added) (citing James R. Davis and Thomas Trobaugh, *Direction Assistance*, Technical Report 1, MIT Media Laboratory Speech Group, Dec. 1987); (Docket Entry No. 154, Exhibit 20) (noting "In 1985 I entered the doctoral program at the Media Lab. My main pieces of work there were *Direction Assistance* (which gives spoken driving instructions over the telephone) and *Back Seat Driver* (which does the same thing in a car while you're driving.)."); (Docket Entry No. 154, Exhibit 16 (filed under seal)) at MIT 06769-73 (noting the Direction Assistance as [[REDACTED]]).

Moreover, because these projects were related, certain parts of Direction Assistance were carried over into the Back Seat Driver. *Id.* These Direction Assistance features are relevant because it establishes when these features existed in the Back Seat Driver, reaffirming MIT's admission that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* Harman's SOF 27.

#### **HARMAN'S STATEMENT OF FACT NO. 63:**

The Direction Assistance System included computing apparatus for running and coordinating system processes. (Tab 17, Direction Assistance paper at, e.g., 1.1 Overview.)

#### **MIT'S RESPONSE:**

MIT does not dispute that Direction Assistance used a computing apparatus, but MIT disputes any inference Harman seeks to draw therefrom. The computing apparatus of Direction Assistance was not the same computing apparatus used in the Back Seat Driver prototypes. *See also* Response to Harman's SOF 62.

#### **HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

#### **HARMAN'S STATEMENT OF FACT NO. 64:**

The Direction Assistance System included input means (a telephone keypad) functionally connected to the computing apparatus for entering a desired destination. (Tab 17, Direction Assistance Paper at "Abstract"); (Tab 22, Direction Assistance Voice Interface paper at pp. 1 and 3 ("The user can specify location by giving [] a street number and name . . ." using the telephone keypad).)

**MIT'S RESPONSE:**

MIT does not dispute that Direction Assistance used a telephone keypad, but MIT disputes any inference Harman seeks to draw therefrom. The term “input means” has been submitted to the Court for *Markman* construction, and Harman cannot show that under the definition proposed by Harman, Direction Assistance had an input means. *See also* Response to Harman’s SOF 62.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT’s comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT’s purported claim construction objection is moot since the only relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used that vehicle in public through July 1989. *See* ’685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

In addition, Direction Assistance had a telephone keypad, which is within both parties’ proposed constructions of the “input means” structure, so there is no issue of claim construction with respect to the Statement of Fact that Direction Assistance had this claimed feature. *See* (Docket Entry No. 156).

**HARMAN'S STATEMENT OF FACT NO. 65:**

The Direction Assistance System included a map database functionally connected to the computing apparatus and which distinguished between physical and legal connectivity.” (Tab 17, Direction Assistance paper at, e.g., pp. 2-3 “Databases”); (Tab 9, Davis Dep. at 218:22-219:2 and 221:9-222:6).

**MIT'S RESPONSE:**

MIT does not dispute that Direction Assistance used a map database, but MIT disputes any inference Harman seeks to draw therefrom. The term “map database...which distinguished between physical and legal connectivity” has been submitted to the Court for *Markman* construction, and Harman cannot show that under the definition proposed by Harman, Direction Assistance used such a database. *See also* Response to Harman’s SOF 62.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's purported claim construction objection is moot since the only relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used that vehicle in public through July 1989. See '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

In addition, Direction Assistance had a telephone keypad, which is within both parties' proposed constructions of the "input means" structure, so there is no issue of claim construction with respect to the Statement of Fact that Direction Assistance had this claimed feature. *See* (Docket Entry No. 156).

**HARMAN'S STATEMENT OF FACT NO. 66:**

The Direction Assistance System included a route-finder functionally connected to the computing apparatus for accepting the desired destination from the input means, for consulting the map database, and for computing a route to the destination. (Tab 17, Direction Assistance paper at, e.g., pp. 1 "Overview" and 6-7 "Route Finder"); (Tab 9, Davis Dep. at 225:5-23 (noting some uncertainty as to the particular type of route finder, but not that a route finder was present).)

**MIT'S RESPONSE:**

MIT does not dispute that Direction Assistance included a route-finder, but MIT disputes any inference Harman seeks to draw therefrom. The term "consulting" has been submitted to the Court for *Markman* construction, and Harman cannot show that under the definition proposed by Harman, the Direction Assistance route-finder consulted the database. MIT also disputes Harman's attempt to characterize the route-finder of claim 1 of the '685 patent without including the rest of the language from that element of claim 1, including "for accepting the current position from the location system," because the Direction Assistance product did not accept a current position from any location system. *See also* Response to Harman's SOF 62.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding

any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT's purported claim construction objection is moot since the only relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used that vehicle in public through July 1989. *See* '685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman's SOF Nos. 6-9, 14-15, 28-33, 35-39.

In addition, Direction Assistance had a telephone keypad, which is within both parties' proposed constructions of the "input means" structure, so there is no issue of claim construction with respect to the Statement of Fact that Direction Assistance had this claimed feature. *See* (Docket Entry No. 156).

#### **HARMAN'S STATEMENT OF FACT NO. 67:**

The Direction Assistance System included a module functionally connected to the computing apparatus, for accepting the route from the route finder, and for composing discourse, including instructions for directing someone to their desired destination. (Tab 17, Direction Assistance paper at e.g., pp. 1 "Overview" and 7-13 "Describer"); (Tab 9, Davis Dep. at 205:11-207:7); *see also* (Tab 40, filed under seal Schmandt Dep. at 148:20-24 ([[REDACTED]])); (Tab 10 Schmandt Dep. at 268:3-5 ("Q: Did the Direction Assistance device generate discourse? A: Yes."), and 269:1-10 (discussing connections and composing instructions)).

#### **MIT'S RESPONSE:**

MIT does not dispute that Direction Assistance included a module for composing static-instruction-type directions but MIT disputes any inference Harman seeks to draw therefrom. MIT disputes Harman's attempt to characterize this module as a "discourse generator" recited by claim 1 of the '685 patent. The term "discourse generator" as it is used in the '685 patent has been submitted to the Court for *Markman* construction wherein the term refers to real-time dialogue according to a discourse model, and Harman cannot show that under the definition proposed by MIT or Harman, that Direction Assistance composed discourse. Harman's characterization of Direction Assistance implies that Direction Assistance was a navigation system, which it was not. "Direction Assistance" was a static, direction-giving program; the "Back Seat Driver" was a real-time automobile navigation system. Exh. 2 at 108; Exh. 1 at 1:59-62. Dr. Davis testified that although what Direction Assistance generated could be called "discourse," the discourse generator of the "Back Seat Driver" was significantly different from "Direction Assistance". Exh. 10 at 215:6-216:5:

Q: Let me just clear this up. At the time the 'Direction Assistance' display was installed in the Boston Computer Museum, did it have a discourse generator.

MR BAUER: Objection. Undefined term. By what definition, Mr. Leavell?

Q: You can answer sir.

A: The ‘Direction Assistance’ program produces one kind of text. It doesn’t produce real time text. It has a discourse generator, and it is a different discourse generator than ‘The Back Seat Driver.’

Q: But did it have a discourse generator when it was first installed in the computer museum?

MR BAUER: Objection. An undefined term.

A: There are two kinds of discourse generators we are talking about here.

Q: Understood.

A: I think you could – from the standpoint of discourse generator as I intended it in ‘685, no, it didn’t have a discourse generator.

Q: Why not?

A: Because it wasn’t doing real time discourse. This was a different kind of discourse.

*See also Response to Harman’s SOF 62.*

**HARMAN’S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman’s actual statement of fact. As such, MIT’s comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

MIT’s purported claim construction objection is moot since the only relevant and undisputed evidence is that Claims 1, 42 and 45 were embodied and reduced to practice in a vehicle at least as early as June 1989 and that MIT subsequently used that vehicle in public through July 1989. See ’685 Patent at Claims 1, 42, and 45 (Docket Entry No. 154, Exhibit 1); Harman’s SOF Nos. 6-9, 14-15, 28-33, 35-39.

MIT’s Exh. 2 at 108 and Exh. 1 at 1:59-62, which MIT relies on for this assertion do nothing more than point out respectively that Direction Assistance was a static program and that “the present invention” was called the “Back Seat

Driver.” In addition, the portion of Davis’ deposition testimony that MIT relies upon only shows that the kind of text produced by the discourse generator differed between the two projects because Direction Assistance was a static program and the Back Seat Driver was real time. *See* Exh. 10 at 215:6-216:5.

The undisputed evidence shows that while these were separate research projects, they were directly related. (Docket Entry No. 154, Exhibit 10) at 29:10-21; (Docket Entry No. 154, Exhibit 30) at STREETER 219; (Docket Entry No. 154, Exhibit 6) at MIT 1101-1102 (noting “The generation of easy [sic] followed natural descriptions requires more extensions. We added a number of new segment types to distinguish bridges, underpasses, tunnels, rotaries, and access ramps. *All these extensions were done for an earlier route finding project*” (emphasis added) (citing James R. Davis and Thomas Trobaugh, *Direction Assistance*, Technical Report 1, MIT Media Laboratory Speech Group, Dec. 1987)); (Docket Entry No. 154, Exhibit 20) (noting “In 1985 I entered the doctoral program at the Media Lab. My main pieces of work there were *Direction Assistance* (which gives spoken driving instructions over the telephone) and *Back Seat Driver* (which does the same thing in a car while you’re driving.”); (Docket Entry No. 154, Exhibit 16 (filed under seal)) at MIT 06769-73 (noting the Direction Assistance as [[REDACTED]]).

Moreover, because these projects were related, certain parts of Direction Assistance were carried over into the Back Seat Driver. *Id.* These Direction Assistance features are relevant because it establishes when these features existed in the Back Seat Driver, reaffirming MIT’s admission that Claims 1, 42, and 45 were reduced to practice by at least June 1989. *See* Harman’s SOF 27.

#### **HARMAN’S STATEMENT OF FACT NO. 68:**

In the discourse generated by the Direction Assistance System, intersections in a route were classified into one type in a taxonomy of intersection types, and the discourse generated in relation to each said intersection depended on its type. (Tab 17, Direction Assistance paper at pp. 8-10 (“natural instructions should be expressed in terms of geometry and types of streets. Consider the difference between a ‘fork,’ a ‘T,’ and an ‘exit,’ as shown in figure 7. All have the same topology - a branch in the road. But they must be described differently. The Describer’s structure is a *tour*, which is a sequence of *acts* to be taken in following the path. . . . Figure 8 shows our taxonomy of acts . . . There are several types of TURN acts. The ENTER and EXIT acts refer to limited access roads. . . . We want to recognize entrances and exits, and we want to describe access ramps in different terms than other streets. A MERGE and a FORK are similar in that they are different actions that might be taken at the same intersection, depending upon the direction one is driving. . . . At a FORK on the other hand, there are at least two ways to go, though all are shallow turns. Note that a ‘fork’ onto an exit ramp is recognized as an EXIT. . . . Perhaps the most insidious feature of Boston’s streets is the ROTARY. For those not familiar with the term, a rotary is a one way street in a circle. . . . Recognition of a rotary is trivial, but only because we label all rotary segments explicitly in the street map. An ORDINARY turn is anything not handled by one of the above cases.”) and Figure 8 “Act Taxonomy”); (Tab 9,

Davis Dep. at 205:11-207:7); *see also* (Tab 40, filed under seal, Schmandt Dep. at 148:20-24 ([REDACTED]), (Tab 10, Schmandt Dep. at 268:3-5 (“Q: Did the Direction Assistance device generate discourse? A: Yes.”), and 269:1-10 (discussing connections and composing instructions).)

**MIT'S RESPONSE:**

See Response to Harman's SOF 67.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

*See Harman's Reply to SOF No. 67, incorporated herein by reference.*

**HARMAN'S STATEMENT OF FACT NO. 69:**

The Direction Assistance System included a speech generator (a DecTalk speech synthesizer) that generated speech from the module that composed the discourse. (Tab 17, Direction Assistance paper at “Abstract”); (Tab 22, Direction Assistance Voice Interface paper, at pp. 6-7 “The Narrator,” “Difficulties of Speech Synthesis”); (Tab 9, Davis Dep. at 207:8-16).

**MIT'S RESPONSE:**

MIT does not dispute this but does dispute any inferences Harman seeks to draw from this fact because Direction Assistance was irrelevant to Back Seat Driver. *See also* Response to Harman's SOF 62.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

As for the relevance of “Direction Assistance,” *see* Harman's SOF 25 and 27, incorporated herein by reference.

**HARMAN'S STATEMENT OF FACT NO. 70:**

The Direction Assistance System included voice apparatus (a speaker) functionally connected to the speech synthesizer for communicating the speech to the user. (Tab 17, Direction Assistance paper at "Abstract"); (Tab 22, Direction Assistance Voice Interface paper, at pp. 6-7 "The Narrator," "Difficulties of Speech Synthesis"); (Tab 9, Davis Dep. at 207:17-24).

**MIT'S RESPONSE:**

See Response to Harman's SOF 69.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

As for the relevance of "Direction Assistance," see Harman's SOF 25 and 27, incorporated herein by reference.

**2. The Location System and Speech Generator Used in the Back Seat Driver Were Already in the Public Domain by 1988.**

**HARMAN'S STATEMENT OF FACT NO. 71:**

The location system used in the Back Seat Driver project was a unit acquired by Davis and Schmandt from NEC. (Tab 40, filed under seal, Schmandt Dep. at 151:19-153:20); (Tab 6, MIT 1101-02 at "System" ("a localization unit built by NEC.")); (Tab 9, Davis Dep. at 93:12-20).

**MIT'S RESPONSE:**

MIT does not dispute this but does dispute any inferences Harman seeks to draw from this fact, including an inference that inventors are not allowed patent inventions that in some way involve components that happen to be available, which is contrary to well-established law. See *City of Elizabeth v. Am. Nicholson Paving Co.*, 97 U.S. 126, 129-130 (1877).

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding

any other issue provide no basis for any conclusion other than to deem this fact admitted.

**HARMAN'S STATEMENT OF FACT NO. 72:**

The NEC location system that was used in the Back Seat Driver is described in a 1988 publication. (Tab 37, Ono paper); (Tab 40, filed under seal, Schmandt Dep. at 151:19-153:20.)

**MIT'S RESPONSE:**

MIT does not dispute that NEC provided a dead reckoning system for use in the Back Seat Driver but disputes Harman's characterization of the NEC device as the "location system" and the 1988 publication as "describ[ing]" the "location system." *See also* Response to Harman's SOF 71. Mr. Schmandt's deposition testimony stands on its own.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Regardless, MIT's own publications show that the Ono paper (cited above by Harman) indeed does describe the location system used in the Back Seat Driver. *See* MIT 01101 (Docket Entry No. 154, Exhibit 6) (Synthetic Speech for Real Time Direction-Giving) (June 1989) ("Our vehicle is equipped with a localization unit built by NEC Home Electronics, Ltd., the project sponsor. It is a dead-reckoning position keeping system which uses speed and direction sensors. To compensate for error, it uses map matching on a map database stored in CD ROM. *The system is described more fully in [The Ono Paper]*" (emphasis added)); MIT 1102 (Docket Entry No. 154, Exhibit 6) at Block Diagram (showing the inclusion of the position sensor); MIT 00938 (Docket Entry No. 154, Exhibit 5) at "System Overview" (dated June 1989) ("The location system (supplied by the project sponsor, NEC) determines the current position of the vehicle by dead reckoning and map matching. *It is further described in [The Ono Paper].*" (emphasis added)).

**HARMAN'S STATEMENT OF FACT NO. 73:**

Davis and Schmandt had nothing to do with the design or implementation of the location finding hardware for the Back Seat Driver system. (Tab 9, Davis Dep. at 93:17-20.)

**MIT'S RESPONSE:**

MIT does not dispute that NEC provided location-finding hardware. MIT does dispute Harman's mischaracterization that "Davis and Schmandt had nothing to do with the design or implementation of the location finding hardware for the Back Seat Driver system." Davis and Schmandt interfaced the NEC system to the working Back Seat Driver system and were required to do substantial work to get the systems co-operational. Exh. 9 at 173. *See also* Response to Harman's SOF 71.

**HARMAN'S REPLY:**

No genuine issues of material fact relevant to Harman's motion. MIT does not dispute that the location-finding hardware was developed by NEC and supplied to MIT for the purpose of the Back Seat Driver project. Whether or not MIT had to do some work to connect the NEC system to the prototype is irrelevant to Harman's motion.

Exh. 9 at 173, which MIT relies on in support of its assertion, is the July 1989 quarterly report sent to NEC and it says nothing of any "substantial work to get the systems co-operational."

**HARMAN'S STATEMENT OF FACT NO. 74:**

The speech generator used in the Back Seat Driver project was an off-the-shelf speech synthesizer, called a DecTalk, that could be purchased at the time (at least as early as 1987) from Digital Equipment Corporation. (Tab 9, Davis Dep. at 93:21-94:22.)

**MIT'S RESPONSE:**

MIT does not dispute that DEC made the speech synthesizer system. *See also* Response to Harman's SOF 71.

**HARMAN'S REPLY:**

MIT neither denies nor disputes the actual statement of fact. Nor does MIT cite any evidence to support its assertions regarding this fact, or to rebut in anyway Harman's actual statement of fact. As such, MIT's comments regarding any other issue provide no basis for any conclusion other than to deem this fact admitted.

Date: September 26, 2007

Respectfully submitted,

/s/ Courtney A. Clark

Robert J. Muldoon, Jr., BBO# 359480  
Courtney A. Clark, BBO# 651381  
SHERIN AND LODGEN, LLP  
101 Federal Street  
Boston, MA 02110

William A. Streff, Jr., P.C.  
Michelle A.H. Francis  
Craig D. Leavell  
Jamal M. Edwards  
Colleen M. Garlington  
Joanna Belle Gunderson  
KIRKLAND & ELLIS LLP  
200 East Randolph Drive  
Chicago, IL 60601  
(312) 861-2000 (phone)  
(312) 861-2200 (fax)

*Attorneys for Defendant  
Harman International Industries, Incorporated*

**CERTIFICATE OF SERVICE**

I hereby certify that this document filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing and paper copies will be sent to those indicated as non-registered participants on September 26, 2007.

/s/ Courtney A. Clark

Courtney A. Clark

Excerpts from the:

February 8, 2006

Deposition of  
Christopher M. Schmandt

Christopher M. Schmandt February 8, 2006

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VOLUME 1

PAGES 1 - 301

EXHIBITS D32 - D44

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS

No. 05-10990 DPW

-----  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY,

Plaintiffs

vs.

HARMAN INTERNATIONAL INDUSTRIES, INCORPORATED,

Defendants

-----  
VIDEOTAPED DEPOSITION OF CHRISTOPHER M. SCHMANDT

Wednesday, February 8, 2006 9:38 a.m.

Proskauer Rose LLP

One International Place, Boston, MA 02111

Reporter: Janet M. Konarski, RMR, CRR

LegalLink Boston

320 Congress Street, Boston, MA 02110

(617) 542-0039

Christopher M. Schmandt February 8, 2006

Page 2

1 APPEARANCES:

2

3 PROSKAUER ROSE LLP

4 (By Steven M. Bauer, Esquire,  
5 and Kimberly A. Mottley, Esquire)\*

6 One International Place

7 Boston, Massachusetts 02110

8 (617)526-9616

9 Counsel for the Plaintiff

10

11 KIRKLAND & ELLIS LLP

12 (By Craig D. Leavell, Esquire)

13 200 East Randolph Drive

14 Chicago, Illinois 60601

15 (312)861-2105

16 Counsel for the Defendant

17

18 ALSO PRESENT:

19 Robert P. Hart, Chief Intellectual Property

20 Counsel, Harman International

21 Jason Lachapelle, Videographer

22 \* Not present at all times

23

24

Christopher M. Schmandt February 8, 2006

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1                   THE VIDEOGRAPHER: Here begins Videotape  
2 No. 1 in the deposition of Chris Schmandt in the matter  
3 of Massachusetts Institute of Technology v. Harman  
4 International Industries, Incorporated in the United  
5 States District Court for the District of  
6 Massachusetts, Case No. 05-10990DPW. Today's date is  
7 February 8, 2006. The time on the video monitor is  
8 9:38 a.m.

9                   The video operator today is Jason  
10 Lachapelle, a notary public, contracted by LegaLink  
11 Boston. This deposition is taking place at One  
12 International Place, Boston, Massachusetts, and was  
13 noticed by Kirkland & Ellis for the defense.

14                  Counsel, please voice identify yourself and  
15 state whom you represent.

16                  MR. BAUER: Steven Bauer from Proskauer  
17 Rose, representing MIT and the witness.

18                  MS. MOTTLEY: Kimberley Mottley from  
19 Proskauer Rose, representing MIT and the witness.

20                  MR. LEAVELL: Craig Leavell from Kirkland  
21 and Ellis, representing Harman.

22                  MR. HART: Robert Hart representing Harman  
23 International.

24                  THE VIDEOGRAPHER: The court reporter

Christopher M. Schmandt February 8, 2006

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1 today is Janet Konarski. Would the reporter please  
2 swear in the witness.

7 DIRECT EXAMINATION

8 BY MR. LEAVELL:

9 Q. Good morning, sir.

10 A. Good morning.

11 Q. We've introduced each other, but for the  
12 record, my name is Craig Leavell, and I'll be taking  
13 your deposition today. It's important that you  
14 understand each question that I ask of you. So, if  
15 there is any time that you don't understand a question  
16 or any portion of a question that I ask you, will you  
17 let me know, so that I can rephrase or try to fix the  
18 question?

19 A. I'll do my best.

20 Q. It's also important that you hear my  
21 questions. If there is a question I ask that you don't  
22 hear, will you let me know, so that I can repeat it?

23 A Again, I'll do my best.

Q. If at any time today you realize that an

Page 156

1           A. Is there any advantage, yes. Digitized  
2 speech is more intelligible than synthetic speech.

3           Q. The Back Seat Driver systems that were  
4 actually built by you and Mr. Davis used synthesized  
5 speech, right?

6           A. To be correct, it was only a single  
7 system, the Back Seat Driver system, and it used  
8 synthesized speech, yes.

9           Q. There is only one Back Seat Driver machine  
10 that was ever built?

11          A. Yes.

12          Q. When was it built?

13          A. Well, it was a -- we need to define our  
14 terms. Back Seat Driver was a set of equipment  
15 installed in a particular car. That car used different  
16 kinds of computing. Sometimes the computing was in the  
17 car. Sometimes it was out of the car, but there was  
18 only ever one car that was associated with the term  
19 Back Seat Driver.

20          Q. When was the first -- in your mind, when  
21 was the first car equipped with a Back Seat Driver  
22 system?

23                   MR. BAUER: Objection. Vague.

24          A. In, sometime in 1988. I'm sorry, 1989.

Christopher M. Schmandt February 8, 2006

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1 E R R A T A S H E E T

2 I, CHRISTOPHER M. SCHMANDT, do hereby certify  
3 that I have read the foregoing transcript of my  
4 testimony, and further certify that it is a true and  
5 accurate record of my testimony (with the exception of  
6 the corrections listed below).

7 PAGE LINE CORRECTION

8 \_\_\_\_\_

9 \_\_\_\_\_

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11 \_\_\_\_\_

12 \_\_\_\_\_

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18 \_\_\_\_\_

19 \_\_\_\_\_

20 Signed under the pains and penalties this \_\_\_\_\_

21 day of \_\_\_\_\_, 2006.

22

23

24 CHRISTOPHER M. SCHMANDT

Chris Schmandt

+1-781-721-3417

p.2

**CORRECTIONS TO DEPOSITION TRANSCRIPT  
OF CHRISTOPHER M. SCHMANDT**  
February 8, 2006

*MASSACHUSETTS INSTITUTE OF TECHNOLOGY V. HARMAN INTERNATIONAL  
INDUSTRIES INC., C.A. No. 05-10990-DPW*

Page	Line	Change/Correction	Reason
Global	Global	Change "Trobough" to "Trobaugh"	Transcription error
Global	Global	Change "realtime" to "real time"	Transcription error
Global	Global	Change "dime" to "DIME"	Transcription error
10	15	Change "I was" to "They were"	Clarification
51	2	Change "media lab" to "Media Lab"	Transcription error
57	17	Change "you o know" to "you know"	Transcription error
68	20	Change "Stephen Marte" to "Stefan Marti"	Transcription error
69	8	Change "sense" to "since"	Transcription error
78	23	Change "invention" to "information"	Clarification
79	8	Change "invention" to "information"	Clarification
89	4-5	Change "committee on the use of humans in experimental subjects" to "Committee on the Use of Humans as Experimental Subjects"	Transcription error
96	3	Change "Rittbueler" to "Rittmueller"	Transcription error
128	24	Change "now" to "know"	Transcription error
130	8	Change "we're" to "were"	Transcription error
130	9	Change "we're" to "were"	Transcription error
131	21	Change "MS. MOTTELEY" to "MR. HART"	Transcription error
158	1	Change "tie-down" to "tied-down"	Transcription error
182	16	Change "tit" to "it"	Transcription error
186	13	Change "List" to "Lisp"	Transcription error
186	13	Change "Spark" to "Sparc"	Transcription error
202	15	Change "68,000" to "68000"	Transcription error
203	4-6	Change "Yes. The computing apparatus appears to be a pair of microprocessors, at least one of which is a Motorola 68,000." to "Yes. The computing apparatus appears to be a pair of microprocessors, at least one of which is a Motorola 68000."	Transcription error
205	8	Change "It's a drawing. So, one of" to "It's a drawing. BY MR. LEAVELL: Q. So, one of"	Transcription error
213	20	Change "their" to "the"	Transcription error
216	15	Change "lane be" to "lane may be"	Transcription error
234	5	Change "list" to "Lisp"	Transcription error
238	11	Change "an affeer of" to "anaphora"	Transcription error
251	6	Change "media library" to "Media Lab Library"	Transcription error

Chris Schmandt

+1-781-721-3417

p.3

**CORRECTIONS TO DEPOSITION TRANSCRIPT  
OF CHRISTOPHER M. SCHMANDT**  
February 8, 2006

*MASSACHUSETTS INSTITUTE OF TECHNOLOGY V. HARMAN INTERNATIONAL  
INDUSTRIES INC., C.A. NO. 05-10990-DPW*

Page	Line	Change/Correction	Reason
259	16	Change "degenerative rates" to "degenerates"	Transcription error
278	17	Change "hardware man" to "Harman"	Transcription error
280	12-13	Change "Before Voice Assisted Automobile Navigation" to "Back Seat Driver: voice assisted automobile navigation"	Transcription error
285	10	Change "spark station" to "Sparc Station"	Transcription error
286	4	Change "tiger" to "TIGER"	Transcription error
287	9	Change "deertation" to "dissertation"	Transcription error

I have read the foregoing transcript of my deposition and except for the corrections and changes noted above, I hereby subscribe to the transcript as an accurate reflection of the statements made by me.




---

Christopher M. Schmandt

Not Reported in F.Supp.

Page 1

Not Reported in F.Supp., 1993 WL 498863 (D.N.J.), 28 U.S.P.Q.2d 1241

(Cite as: Not Reported in F.Supp.)

American Ceramicraft, Inc. v. Eisenbraun Reiss Inc.  
D.N.J. 1993

United States District Court, D. New Jersey.  
AMERICAN CERAMICRAFT, INC.; Andrew R. Ferber, Individually; Flora-Lite Co.; and Lamrite West Inc., d/b/a Darice; Plaintiffs,  
v.  
EISEN BRAUN REISS INC.; Defendant.  
**Civ. No. 92-2851.**

June 16, 1993.

Lerner, David, Littenberg, Krumholz & Mentlik by Daniel H. Bobis, Roy H. Wepner, and Keith E. Gilman, Westfield, NJ, for plaintiffs.

Krass & Young by Judith M. Riley and Allen M. Krass, Troy, MI, Connell, Foley & Geiser, Richard D. Catenacci, Roseland, NJ, for defendant.

#### OPINION

DEBEVOISE, District Judge.

\*1 Plaintiffs instituted this action seeking a declaratory judgment that U.S. Letters Patent No. 5,113,325 is invalid, and seeking injunctive and compensatory relief for tortious interference with contract and future economic advantage, common law unfair trade competition and practices, and false representation under section 43(a) of the Lanham Act, 15 U.S.C. § 1025(a). Plaintiffs now move for partial summary judgment on their declaratory claims for invalidity, and Defendant cross-moves to stay this action pending the reexamination of its patent by the Patent and Trademark Office. This court has jurisdiction over Plaintiffs' federal claims under 28 U.S.C. §§ 1331 and 1338(a) (patents), jurisdiction over declaratory judgments under 28 U.S.C. § 2201, and supplemental jurisdiction over Plaintiff's state law claims under 28 U.S.C. 1337(a).

#### I. STATEMENT OF FACTS

The invention at issue in this patent litigation is a small, patented "minilight" kit that can be easily af-

fixed to a garment. Once affixed, the minilight kit provides a multiplicity of points of illumination for creating or highlighting designs. Plaintiff American Ceramicraft, Inc., ("American") is a New Jersey Corporation that manufactures and sells minilight kits. Plaintiff Andrew R. Ferber is the president of American, and he also sells the minilight kits independently. Plaintiffs Flora-Lite Company ("Flora-Lite") and Lamrite West, Inc., ("Darice") are a Florida unincorporated business entity and an Ohio corporation, respectively, that sell minilight kits purchased from Plaintiffs. Flora-Lite was originally a California corporation owned by Camille Savarese, and it relocated to Florida after its sale to Robert Kamins in September 1991. Defendant Eisenbraun Reiss, Inc., ("Eisenbraun") is a Michigan competitor of Plaintiffs.

The origin of this dispute dates to late 1991, when Defendant learned that Flora-Lite was selling minilight kits that appeared to duplicate its own minilights, and that Flora-Lite was marketing these kits using photocopies of Defendant's promotional literature. Defendant's counsel warned Flora-Lite by letter of September 6, 1991, that "[i]n order to avoid the necessity of legal action to prevent further violation of our client's rights and to compensate them for your past violations, we ask that you immediately contact us to discuss suitable terms for such termination and compensation." (Riley Decl., Ex. C.)

Robert Kamins, the owner of Flora-Lite, responded to the warning by reassuring Defendant that he regretted photocopying Defendant's literature and that he did not have any of the allegedly infringing minilights "available." Mr. Kamins also declared that "[w]e apologize for this incident and we can assure you that it will not happen again." (Riley Decl., Ex. D.)

Despite Mr. Kamins' declarations, Flora-Lite and the other plaintiffs apparently continued to sell the minilight kits. Thereafter, Defendant took further steps to protect its investment. In early 1992, De-

fendant notified at least one manufacturer that “any module made like ours, lights at the end of wires, etc. would infringe our patents.... We will defend our patent when necessary.” (Compl. at ¶ 23.) Defendant continued to warn Plaintiffs and their customers about infringement, and Plaintiffs advised Defendant that its warnings were unlawful. (*Id.* at ¶¶ 24-37.)

\*2 After the patent issued on May 12, 1992, Defendant allegedly sent Notice of Infringement letters to Plaintiffs Darice and Flora-Lite, with the notice to Darice marked to the attention of American and Mr. Ferber. (*Id.* at ¶ 38.) The parties exchanged several more communications, and then Plaintiffs filed this complaint. (*Id.* at 39-44.)

#### A. The '325 Patent And Prior Inventions

##### *The '325 patent.*

In May 1992 Ken Eisenbraun received U.S. Letters Patent No. 5,113,325 (“the '325 patent”) for his minilight kits. The claims of the '325 patent are set forth in the margin.<sup>FN1</sup> In brief, the key features of the claims are as follows:

Claim 1: a plurality of lights, designed to protrude through apertures in a garment, with each light independently attached by a pair of wires to a central control unit; and elements for securing the lights to the garment.

Claim 2: Claim 1, with a fastener to secure the control unit to the inside of the garment.

Claim 3: Claim 1, with an on/off switch.

Claim 4: Claim 3, with a multiposition on/off switch.

Claim 5: Claim 4, with the positions of the on/off switch including a position where the lights blink independently and a position where the lights burn steadily.

Claim 6: Claim 1, with the leads to the lights being of equal length.

Claim 7: Claim 1, with the lights blinking periodically.

Claim 8: Claim 1, with the lights being light-emitting diodes (“LEDs”) and the kit containing a power supply.

Claim 9: Claim 8, with a removable battery, a control unit in a soft-sided case, and an attachment to secure the case to the garment.

Claim 10: Claim 9, with the control unit and attached battery having a substantially flat profile.

Claim 11: Claim 1, using O-rings to secure the lights to the garment.

Claim 12: A plurality of lights, designed to be removably mounted on an (unspecified) outer surface, with each light independently attached by a pair of wires to a central control unit.

Thus, the patent contains only two independent claims: claims 1 and 12. Each of the features of claim 1 appears in claims 2-11, and claim 12 stands on its own.

The invention described in the '325 patent was not the first small device with multiple lights, nor the first to be affixed to a garment. As described below, the parties have identified several other devices that preceded the '325 patent.

*The Shenker Patent.* The Shenker Patent, U.S. Letters Patent No. 4,823,240, issued April 18, 1989, discloses an “audio-visual assembly for articles of clothing.” (Pls.' Ex. 3A.) The visual aspect of the Shenker patent, which is the relevant aspect here, included the following features: minilights (including LEDs) attached to an activating device, with the whole assemblage removably affixed to the inside of a garment and positioned so that the minilights protruded through holes to illuminate the garment's outer surface. The “second embodiment” of the patent specification also includes O-rings for securing the minilights to the garment.

\*3 The key difference between the Shenker and '325 patents is that the Shenker patent disclosed a device where every minilight was wired directly to the other minilights to form a closed array. By comparison, each minilight in the '325 patent was separately attached to the control unit and could be placed on the garment independently of the others. Thus, the '325 patent provides more flexibility in the illumination of garment designs. (Pls.' Ex. 2 at 73-76.)

*The Beard Patent.* The Beard Patent, U.S. Letters Patent No. 4,367,515, issued January 4, 1983, discloses a roller skate minilight attachment. (Pls.' Ex. 3B.) The patent included the following features: LEDs affixed to a toroidal disk, with each LED attached to a power supply and a control unit.

In two of the manifestations of the invention, the individual LEDs appear to be connected by individual lines to a common trunk line which, in turn, is connected to the controller. (*Id.*, Figs. 4, 6.) In the other manifestation, the LEDs appear to be individually connected to the control circuit so that the circuit can direct the LEDs to flash in sequence. (*Id.*, col. 4, Figs. 3, 5.) However, in prosecuting its patent, Defendant contended to the Patent and Trademark Office that the LEDs were not independently wired to the control circuit. (Pls.' Ex. 2 at 76-77.)

The key differences between the Beard and '325 patents are the asserted lack of independence among the minilights in the Beard patent, their fixed attachment to the toroidal disk, the lack of a multiposition switch, and the absence of any adaptations for use with a garment. (*Id.*.)

*The Miller Patent.* The Miller Patent, U.S. Letters Patent No. 4,164,008, issued August 7, 1979, discloses an illuminated article of clothing. (Pls.' Ex. 3C.) The patent included the following features: minilights affixed to a flexible printed circuit board attached to the interior of a shirt with holes for the minilights to poke through, with the minilights connected to a power supply and a control unit. FN2 The circuit board assemblage was either to be "integrally" attached to the shirt by "adhesive," or removably attached with velcro.

The key differences between the Miller and '325 patents are the lack of independence among the minilights in the Miller patent, their fixed attachment to the printed circuit, the lack of removability of the device from the garment, the lack of a multi-position switch, and the lack of individual securement elements for the minilights.

*Type A Minilights.* FN3 From at least 1981, Flora-

Lite (then a California firm owned by Ms. Savarese) has sold "type A" minilight kits. (Savarese Decl. at ¶¶ 3, 10, 19, 20.) Type A minilight kits include six-to-ten incandescent minilights (not LEDs), each of which is independently attached to a power source by a pair of flexible wires. The wires are all the same length for each kit, varying from six to thirty-six inches for different kits. (*Id.*, ¶ 9.)

\*4 Plaintiffs have submitted a variety of kinds of evidence to support their characterization of Type A minilights. To demonstrate the physical nature of the minilights, Plaintiffs have submitted several samples of minilights sold as early as July 1990. (Pls.' Exs. 8, 9; Savarese Decl. at ¶ 14.) To demonstrate the sales of Type A minilights, Plaintiffs have provided a series of invoices for various minilights that Flora-Lite purchased from its Taiwan suppliers between July 1986 and March 1990 (Pls.' Exs. 5, 15); correspondence between Flora-Lite and its Taiwan suppliers in 1989-90 (*id.*, Exs. 13, 14); promotional material from the California Flora-Lite (*id.*, Ex. 4) (most of the California address is covered with a Florida label); invoices for variously-named minilights that Flora-Lite had sold to United States customers between November 1987 and September 1990 (*id.*, Exs. 6, 20); and three publications teaching how to use the minilights in clothing, all copyrighted in 1990 (*id.*, Exs. 22, 24, 25).

The key differences between the Type A minilights and the various '325 patent claims are that the Type A minilights do not have a multi-position flasher control unit, they do not include LEDs, they do not come with elements or fasteners for attaching the minilight kit to a garment, and the power supply is not soft-sided.

*Type B Minilights.* Type B minilights are identical to Type A minilights except that the minilights are attached directly to a control chip that causes the minilights to twinkle. Ms. Savarese searched for an appropriate "twinkle" control chip for several years in the late 1980s before finally discovering a suitable twinkle chip in Taiwan in March 1990. Upon

obtaining sample minilights containing the twinkle chip, Ms. Savarese quickly distributed them to potential customers. (Savarese Decl. at ¶ 21; Pls.' Ex. 11 (twinkling minilight from Florida).) As evidence of this distribution, Plaintiffs have submitted invoices and correspondence between Ms. Savarese and the potential customers (Pls.' Exs. 16-18), as well as invoices and communications between Ms. Savarese and her Taiwan suppliers (*id.*, Exs. 14, 15).

Type B minilights appear identical to Type A minilights except for the control circuit that causes the twinkling. Note, however, that this control circuit is not a multiposition circuit-it only has an “off” and a “twinkle” position.

*Type C Minilights.* Type C minilights are identical to Type B minilights except that Type C minilights use LEDs rather than ordinary incandescent lamps. (Pls.' Ex. 7; Savarese Decl. at ¶ 14.) Ms. Savarese first encountered Type C minilights at the time she discovered her twinkle chip. (Savarese Decl. at ¶ 21.) As with the Type B minilights, Ms. Savarese quickly distributed Type C minilight samples and products to her customers. As evidence of the distribution of the Type C minilights, Plaintiffs have submitted invoices and correspondence between Ms. Savarese and her customers and between Ms. Savarese and her Taiwan suppliers. (Pls.' Exs. 14-16, 18.)

*\*5 Oberbeck Shirts.* Peggy Oberbeck began making and selling garments decorated with minilight kits in late 1987. In the beginning, she used minilights that were wired directly to one another. However, in June 1989 Ms. Oberbeck met Ms. Savarese at a California crafts show and purchased two dozen Flora-Lite minilights. (Oberbeck Decl. at ¶ 6; Pls.' Ex. 20 (invoice).) One month later, Ms. Oberbeck met Ms. Savarese at a Chicago crafts show and sold Ms. Savarese a Christmas tree sweatshirt lit with Flora-Lite minilights, apparently Type A. (Oberbeck Decl. at ¶ 6.) Once Type B minilights became available, Ms. Oberbeck used these on sweatshirts as well. (*Id.* at ¶ 8; Savarese Decl. at ¶ 25.)

Ms. Oberbeck initially attached the Flora-Lite minilights to her sweatshirts by sewing buttonholes into the sweatshirts, inserting the minilights through the buttonholes, gluing the minilights to the inside of the sweatshirt, and then covering the wiring and minilights with a velour insert attached to the sweatshirt with velcro. The battery pack was also attached to the inside of the sweatshirt with velcro. (Oberbeck Decl. at ¶ 8; Savarese Decl. at ¶ 25.)

Later on, in a book copyrighted in 1990, Ms. Oberbeck described a second method of attaching the minilights. In this method, the minilights were glued to the velour insert instead of to the sweatshirt, and the velour insert was then attached (in an unspecified fashion) to the inside of the sweatshirt with the minilights poking through buttonholes. (Pls.' Ex. 21.) Ms. Oberbeck also provided instructions for this latter method in two pattern booklets. (Oberbeck Decl. at ¶ 13, Pls.' Exs. 22, 24.)

*Savarese Shirts.* Ms. Savarese created her own sweatshirt illuminated with minilights in April or May 1990. Her technique for affixing the minilights to the sweatshirt was simpler than that used by Ms. Oberbeck-Ms. Savarese affixed the minilights in place with ordinary tape, and placed the control and battery pack into a pocket sewn on the inside bottom hem. (Savarese Decl. at ¶ 26; Pls.' Ex. 19.) Ms. Savarese displayed her sweatshirt to promote her products in various trade shows, but it is not clear from her declaration when the first of these trade shows took place.<sup>FN4</sup>

SUNSHINE FUN, a manual published in February 1990, disclosed the details of Ms. Savarese's simple technique. (Pls.' Exs. 25, 26 at 32.) This manual recommended using a ten-light Flora-Lite minilight set by inserting the minilights through holes in a garment and taping them on the inside.

*O-Ring Shirts.* Ms. Oberbeck recalls seeing shirts around Christmas-time in 1989 where the maker of the shirts had affixed the minilights with O-rings. The O-rings “were to be used on the outside of the shirt and over the mini-lights to hold the lights in place.” (Oberbeck Decl. at 14.) She again saw O-

rings used in July 1990 at a crafts show, and spoke with someone about the O-ring technique. (*Id.*) However, Ms. Oberbeck does not describe the type of minilight that was used.

\*6 Beginning in 1986, Ms. Savarese also saw garments where the maker had affixed minilights with O-rings. (Savarese Decl. at ¶ 5.) Ms. Savarese implies that the minilights that she saw were those from Flora-Lite, but she does not describe the exact method of attachment.

The key differences between the '325 patent and the assemblages used with these O-ring shirts appear to be that the assemblages may not have had multiposition controls, a twinkle feature, or LEDs, and the assemblages probably had hard-sided, boxy battery packs. However, neither Ms. Savarese's nor Ms. Oberbeck's description is detailed enough to provide a clear picture of the entire minilight-shirt-O-ring assemblage.

*Defendant's Old-style Minilights.* Prior to his invention of the '325 patented device, Mr. Eisenbraun sold a minilight kit in which all the minilights were affixed to a soft plastic sheet that the user could attach to the inside of a shirt. Since the minilights were permanently affixed to the sheet, each kit could only light up a single pattern.

*New-style Minilights and Lightables.* In addition to the devices and garments described above, the parties have submitted as exhibits other, newer, devices sold by Flora-Lite, Darice, and Defendant. These devices apparently do not predate the patent application by more than one year, and hence cannot anticipate the patent.

The Flora-Lite and Darice new-style minilight kits have white or multicolored blinking LEDs attached by separate, 10-inch wires to a flat, hard control unit and batteries. Each kit comes with a package of O-rings, and all of the LEDs have flat bases that extend beyond the circumference of the LED. (Pls.' Exs. 28; Eisenbraun Decl., Exs. G, H.)

Defendant has also submitted one of its own minilight kits, marketed under the name "Lightables."

(Eisenbraun Decl., Ex. A.) The Lightables kit is substantially identical to Plaintiffs' new-style minilight kit, except that Lightables have a push-button switch and a soft cover.

According to Defendant, Flora-Lite and Darice introduced their new-style hard-cover minilight kits in late 1991, about nine months after Defendant's new-style kit appeared on the market in January of that year. (Eisenbraun Decl. at ¶¶ 7, 14, 16, 18.) Defendant suggests that the Flora-Lite and Darice minilight kits are direct copies of its own kits. (Def.'s Opp'g Br. at 4-5.)

#### *B. The Commercial Success of Lightables*

Defendant has submitted evidence that Lightables, which were built according to the '325 patent, enjoyed immediate commercial success. Prior to the introduction of Lightables, Defendant's sales of its old-style minilights amounted to 10,000 units in 1989 and 64,000 units in 1990. After Defendant introduced Lightables in early 1991, the old-style sales declined to 21,000 in that year and to 10,000 in 1992. By comparison, the sales of Lightables boomed. Lightables sold 176,000 units in 1991 and 663,000 in 1992, and Defendant projects sales of 700,000 in 1993. (Eisenbraun Decl. at ¶ 12, Ex. C.)

\*7 Defendant estimates that Plaintiffs have been somewhat less successful with their new-style minilights, with Flora-Lite selling about 75,000 units each year and Darice selling about 100,000 each year.

Defendant attributes the success of new-style minilights to flat, light cases made possible by their small batteries; short, flexible wires; LEDs; and a configuration that allows easy mounting on different garments and patterns. (Eisenbraun Decl. at ¶ 13.) Defendant specifically denies that the success was due to new or additional advertising, fancy packaging, cost cuts, sales through tying arrangements, or anything other than improvements in the minilights themselves. (*Id.* at ¶ 22.)

#### II. PROCEDURAL AND PATENT PROSECUTION HISTORY

Kenneth Eisenbraun first applied for a patent on his minilight kit on August 1, 1991. (Pls.' Ex. 2.) The original application contained 15 claims, three of which were independent. Defendant subsequently discovered that Plaintiffs were selling what appeared to be an infringing product. Consequently, in late September of 1991, Defendant requested that the U.S. Patent and Trademark Office ("the PTO") treat the patent application with special urgency. The PTO granted the request.

Shortly thereafter, Defendant amended its patent on its own initiative to "clarify" the claims and "help distinguish them over the prior art." (Pls.' Ex. 2 at 52.) The amendments simply rephrased sections of the initial claims and replaced claims 11-15 with claims 16 and 17, which later became claims 11 and 12.

One section of rephrasing is worth noting in detail, since it involves the controversial "securement elements," elements such as O-rings for attaching the minilights to the garment. As originally drafted, the securement elements were described as "a plurality of securement elements for affixing said light elements extending through said apertures." The October amendments redrafted this section to specify "a plurality of securement elements for securing said light elements to said article of clothing." (Pls.' Ex. 2 at 47.)

On December 31, 1991, the PTO examiner issued an office action rejecting all of the claims of the patent. In part, the examiner rejected the claims because of technical and grammatical errors in drafting, such as failure to properly label the figures and failure to provide antecedents for referential terms like "*said* light emitting elements." More substantively, the examiner found that the patent was obvious in light of the Shenker, Miller, and Beard patents. The examiner found that, in the aggregate, these patents disclosed light emitting elements and LEDs, flexible independent wiring, control units, multiposition switches,<sup>FN5</sup> removable batteries, and soft-sided cases secured to the garment.

Defendant responded to the examiner's technical

and grammatical objections by amending the patent to correct the various errors and by cancelling claim 1 and adding claim 18. (Pls.' Ex. 2 at 67-79.) Claim 18 had several differences from the earlier claim 1, including a new description of the wiring that independently connected each minilight to the control unit.

\*8 Defendant responded to the examiner's substantive objections by redrafting the claims to emphasize the minilight's versatile wiring arrangement. This arrangement allowed a user to illuminate any of an infinite number of garment designs, because each wire was independently attached directly to the control/power unit rather than to the other minilights. Defendant also mentioned the use of O-rings as securement elements. O-rings were desirable because the user could easily disassemble the minilight-garment to wash the garment or to transfer the minilights to another garment.

After a few more technical corrections, the PTO issued the '325 patent on May 12, 1992. Two months later, on July 14, Plaintiffs filed this suit, and two weeks after that Defendant requested the PTO to reexamine the validity of claim 12, the broadest claim of its patent.

Defendant sought reexamination of claim 12 in order to test its validity against certain prior publications that Plaintiffs had disclosed to Defendant after the '325 patent had issued. These publications included the labels from Type A and Type B minilight kits, the SUNSHINE FUN manual (describing how to use minilights by attaching them to garments with tape), and Mary Maxim publications recommending the old-style kits for illuminating sweatshirt patterns. (Def.'s Opp'g Br. at 6.) Since these publications had not been among the materials reviewed by the examiner during the patent prosecution, Defendant was concerned that claim 12 might not be patentable. In particular, it is worth noting that SUNSHINE FUN, which I find invalidates several of Defendant's claims, was not disclosed to the patent examiner during the initial examination.

On August 21, Defendant joined the litigation by answering the complaint, counterclaiming for patent infringement, and moving to stay the litigation pending the outcome of the reexamination. By order of September 14, 1992, I denied Defendant's request for a stay. Two months later, on October 7, the PTO denied Defendant's request for reexamination. Defendant had apparently failed to substantiate the dates of certain of the publications. (Pls.' Ex. 26 at 28.) Thereafter, Defendant supplied the PTO with the requested documentation and the PTO agreed to reexamine the patent.

Upon reexamination, the PTO rejected all of the claims as obvious because of the Shenker and Miller patents and the Flora-Lite minilights. (3d Gilman Decl.) Defendant responded to the PTO action by replacing the rejected claims and adding new claims, but the PTO also rejected these claims as obvious. Defendant continues to argue that its claims should be allowed, and it has submitted a reply to the PTO's final rejection. The PTO has not yet responded to Defendant's reply.

### III. DISCUSSION

#### A. Standard of Review

Plaintiffs now move for summary judgment on their declaratory claim of patent invalidity, and Defendant renews its request that I stay this action pending reexamination. Plaintiffs contend that certain of the claims of the '325 patent are invalid because the claims were anticipated by earlier minilight kits or, in the alternative, because the '325 patent was obvious. Since patent claims are presumptively valid,<sup>FN6</sup> 35 U.S.C. § 282, Plaintiffs must advance clear and convincing evidence in order to succeed. *Buildex Inc. v. Kason Indus., Inc.*, 849 F.2d 1461, 1462 (Fed.Cir.1988). This "clear and convincing" standard is an intermediate one, more demanding than the "preponderance" standard but less so than the "beyond reasonable doubt" standard. *Id.* It applies to all of my factual findings below.

\*<sup>9</sup> A court must grant summary judgment if the moving party establishes that "there is no genuine issue as to any material fact and that ... [it] is en-

titled to a judgment as a matter of law." Fed.R.Civ.P. 56(c). Once the moving party has carried its burden under Rule 56(c), "its opponent must do more than simply show that there is some metaphysical doubt as to the material facts in question." *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986), *rev'd* 723 F.2d 238 (3d Cir.1983). The opposing party must set forth specific facts showing a genuine issue for trial, and may not rest upon the mere allegations or denials of its pleadings. See *Celotex Corp. v. Catrett*, 477 U.S. 317, 324 (1986); *First National Bank v. Cities Service Co.*, 391 U.S. 253, 289, *reh'd denied*, 393 U.S. 901 (1968); *Sound Ship Bldg. Corp. v. Bethlehem Steel Co.*, 533 F.2d 96, 99 (3d Cir.), *cert. denied*, 429 U.S. 860 (1976).

A genuine issue for trial is present whenever "the evidence presents a sufficient disagreement to require submission to a jury." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 251-252 (1986). In contrast, whenever "the record taken as a whole could not lead a rational trier of fact to find for the non-moving party, there is no 'genuine issue for trial.'" FN7 *Matsushita*, 474 U.S. at 587. In evaluating the record, the court must both weigh the evidence and draw inferences from it "in the light most favorable to the party opposing the motion." *Whitehead v. St. Joe Lead Co., Inc.*, 729 F.2d 238, 251 (3d Cir.1984) (quoting *Coastal States Gas Corp. v. Department of Energy*, 644 F.2d 969, 979 (3d Cir.1981)); *Wahl v. Rexnord, Inc.*, 624 F.2d 1169, 1181 (3d Cir.1980).

In the present case, the parties have provided the court with extensive documentation of the nature of earlier minilight kits, the use of these kits, the prosecution history of the '325 patent, and the display and sales of minilight kits. Although Defendant has challenged many of Plaintiffs' conclusions,<sup>FN8</sup> Defendant has not challenged the authenticity of Plaintiffs' documents or physical exhibits. Accordingly, summary judgment is appropriate to the degree that these documents and exhibits are sufficient to establish Plaintiffs' right to judgment as a matter of law.

#### B. Stay Pending Reexamination

Defendant argues that I should stay this action because the '325 patent is undergoing reexamination with new claims directed to more-specific subject matter. This argument is similar to one that Defendant advanced before, and I will reject it now for many of the same reasons that caused me to reject it earlier.

Defendant asserts that it is necessary to await the outcome of the reexamination because "one can not know what claims may emerge from this procedure" or, in other words, "reexamination of the patent may moot the claim of invalidity." (Def.'s Opp'g Br. at 5 (citing *Albest Metal Stamping Corp. v. Randolph-Road Corp.*, 648 F.Supp. 475 (S.D.N.Y.1986) (staying the action pending reexamination because the reexamination would resolve the validity issues before the court))).

\***10** Even though the PTO reexamination may ultimately moot the claim of invalidity, the PTO has not yet done so. The PTO will cancel a claim only after "the time for appeal has expired or any appeal proceeding has terminated," 35 U.S.C. § 307, and these events have not yet transpired. In addition, even if the reexamination is unfavorable, Defendant intends to continue to press the validity of its patent. (Krass Let. of May 27, 1993.) Thus, the '325 patent is far from dead.

Accordingly, I will not stay this action pending the resolution of Defendant's reexamination. The reexamination is not likely to settle the controversy over the '325 patent any time in the near future, and hence Plaintiffs' need for declaratory relief remains very much alive. As long as the validity of the '325 patent remains in doubt, none of the parties here can put this matter behind them and go about the business of manufacturing and selling minilights.

### C. Claim Construction

The first task in assessing the '325 patent is to construe its claims. The construction of patent claims is a question of law, to be resolved by examining the language of the patent, the surrounding claims, the patent specification, and the prosecution history. *Tillotson, Ltd. v. Walbro Corp.*, 831 F.2d 1033

(Fed.Cir.1987).

In general, "a claim must be construed to uphold its validity if possible." *Lewmar Marine, Inc. v. Barent, Inc.*, 827 F.2d 744, 749 (Fed.Cir.1987), cert. denied, 484 U.S. 1007 (1988). Of course, this does not mean that a court can distort the words of a claim beyond their ordinary meaning. *ZMI Corp. v. Cardiac Resuscitator Corp.*, 844 F.2d 1576, 1579 (Fed.Cir.1988). Even though a court may construe the claims to uphold validity, a court "can neither broaden nor narrow the claims to give the patentee something different than what he has set forth." *E.I. Du Pont De Nemours & Co. v. Phillips Petroleum*, 849 F.2d 1430, 1433 (Fed.Cir.), cert. denied, 488 U.S. 986 (1988).

A court will go beyond the bounds of a claim's ordinary meaning only if the inventor has chosen to create a special vocabulary to describe the invention. The most important guide to the inventor's vocabulary is the patent specification, because "words must be used in the same way in both the claims and the specification." *ZMI Corp.*, 844 F.2d at 1580; *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1569-70 (Fed.Cir.1983). However, a court can only use the specification as an aid to interpretation, and not as a license to introduce extraneous limitations into the claims. "Where a specification does not require a limitation, that limitation should not be read from the specification into the claims." *E.I. Du Pont*, 849 F.2d at 1433.

The claims themselves can also be resources for discovering the meaning of their words. Importantly, " 'where some claims are broad and others narrow, the narrow claim limitations cannot be read into the broad whether to avoid invalidity or to escape infringement.' " *Fromson*, 720 F.2d at 1570.

\***11** Another important resource for claim construction is the prosecution history, or "file wrapper," of the patent. The file wrapper often discloses that the patentee has disavowed certain claim interpretations during the course of prosecution. Once disavowed, these interpretations cannot be resurrected later to enlarge the scope of the patent. *ZMI*, 844

F.2d at 1576; *Fromson*, 720 F.2d at 1570-71.

In the present case, the parties appear to disagree about five issues of claim interpretation: first, whether some or all of the claims require that the minilights be removably affixed to the garment (Def.'s Opp'g Br. at 11); second, whether taped or glued minilights in particular are covered by the claims; third, whether any of the claims require that the minilights have an enlarged base (Eisenbraun Decl. at ¶ 9); fourth, whether the earlier Types A-C battery/control units have a "substantially flat profile" within the meaning of the claims; and fifth, whether the Savarese pocket is a "fastener" for securing the control unit.

The first of these issues is whether the claims require that the minilights be removably affixed to the garment. With regard to claim 12, I find that the ordinary meaning of "removably mountable" does not encompass minilights attached permanently, for example with glue. However, claim 1 is more difficult. Fortunately, it is not necessary to resolve whether claim 1 reads on nonremovable minilights, because I find below that claim 1 does not read on glue for other reasons.

The second issue is whether any of the claims of the patented invention read on either taped or glued minilights in particular. With regard to claim 12, the answer seems clear. Claim 12 does not read on permanently-glued minilights, since these are not "removably mounted." On the other hand, claim 12 does read on <sup>FN9</sup> taped minilights. Tape is easily removed, and claim 12 does not specify the nature of the mounting elements or, indeed, even call for any mounting elements.

Claim 1 is somewhat more difficult. At the outset, however, it is clear that I must construe the securement elements specified in claim 1 to include more than just O-rings. As discussed above, a court must construe each claim in terms of the others, and refrain from importing limitations from one claim into another. *Fromson*, 720 F.2d at 1570. Since claim 11 is limited to O-ring securement devices and claim 1 is not, I must construe claim 1 to read on

securement devices other than O-rings.

Since I find that claim 1 reads on more than just O-rings, I must next determine whether it extends all the way to tape. Defendant argues that a piece of tape cannot constitute a securement element because (1) it is not easily removable, (2) the tape only secures the wires, not the minilights, and (3) I must construe "securement elements" as narrowly as necessary to uphold the patent.

I will reject Defendant's first argument because ordinary tape is easily removable from garments. I will also reject Defendant's second argument, that the securement elements must attach directly to the minilights themselves. Claim 1 only requires that the securement elements function by "securing said light elements to said article of clothing." This language requires securement, but it does not specify the form of the securement. The minilights will be secured no less staunchly if the securement elements attach to the wires at the minilights' bases rather than to the minilights themselves. Furthermore, nothing in the prosecution history, the specification, or the prior art suggests that it is important that the minilight elements themselves be attached. The desirable features of the securement elements were securement and removability, not attachment to the minilight.

\*12 Finally, I must reject Defendant's third argument, that I should construe the claims as narrowly as necessary to uphold the patent. " 'Courts can neither broaden nor narrow the claims to give the patentee something different than what he has set forth.' " *E.I. Du Pont*, 849 F.2d at 1433 (quoting *Autogiro Co. of America v. United States*, 384 F.2d 391, 395-96 (Ct.Cl.1967)). Here, Defendant has simply claimed elements to secure minilights to a garment. Although Defendant has specified a particular element in claim 11, Defendant only specifies elements broadly in claim 1. Nothing in the prosecution history or specification require limitations on claim 1's broad language, and I cannot conjure up a limitation solely to preserve the validity of the claims.

Even though I find that securement elements include tape, I find that they do not include glue, at least not literally.<sup>FN10</sup> Admittedly, claim 1 admits of a construction by which glue is a securement element. Claim 1 calls for a kit containing a “plurality of securement elements,” which I might construe to be a kit containing a tube holding a plurality of daubs of glue. However, such a construction is somewhat strained, and a court should not strain to strike down patent claims. *Lewmar Marine*, 827 F.2d at 749 (FedCir.1987). I find that the ordinary meaning of a kit containing a plurality of securement elements is not a kit with a single tube of glue. In other words, claim 1 does not read on glue.

Similarly, claim 1 does not read on the Oberbeck method of gluing the minilight to a single strip of velour and then attaching the velour to a shirt. (Pls.' Ex. 21.) A strip of velour is not a plurality of securement elements.

The third issue of claim construction is whether the patent claims require that the minilight have a flat base. The patent claims themselves say nothing about a flat base, and so a flat based might be required only if securement elements such as O-rings were also required. As discussed above, claim 1 is not limited to securement elements such as O-rings. Accordingly, I find that the claims do not require minilights with flat bases.

The fourth issue of claim construction is whether a battery-pack such as those in old-style minilights “presents a substantially flat profile,” as specified in claim 10. When examined closely, the words “substantially flat profile” are hardly self-explanatory. The word “flat” alone, in the context of a three-dimensional object, seems clear enough. “Flat” ordinarily connotes “having the major surfaces essentially parallel and distinctly greater than the minor surfaces.” WEBSTER'S NINTH NEW COLLEGiate DICTIONARY 470, def. 5 (1983). However, the word “profile” creates some difficulties. “Profile” connotes “a representation of something in outline,”*id.* at 939 def. 1, or in other words, a two-dimensional projection of a three-dimensional object. Thus, something flat in profile

need not be flat in actuality.<sup>FN11</sup>

\*13 The specification provides a bit of gloss on the function of a “flat profile.” Although the specification does not use the word “profile,” it does explain that a “flat” case “can be used without causing a protrusion on the shirt ... or be otherwise visible.” FN12 Thus, it would seem that the most desirable feature of the case is not that it have a “flat profile”, but rather that it be small enough to hide under a garment.

Fortunately, it is not necessary to determine whether claim 10 requires that the case be small and flat, or only flat, or only flat in profile. The Type A minilights appear to have a control/power unit that is all of the above. These minilights are about 2 3/16 inches long, 1 3/16 inches wide, and 9/16 inches in height. Although the exact physical bounds of “substantially flat” are not clear, I find that, in the present context, a width-to-height ration of over 2-to-1 is “substantially flat.” In addition, the control/power unit is flat in profile and small enough to hide under a sweatshirt.<sup>FN13</sup>

The final issue of claim construction is whether the pocket in the Savarese shirt meets the claim 2 requirement of a “fastener attached [to the control unit] for securing said control unit to an inside surface of said article of clothing,” or the claim 9 requirement of a “fastener attached [to the soft-sided case] for securing said case to an inside surface of said article of clothing.” In other words, claim 2 requires a fastener attached to the control unit, and claim 9 requires one attached to the case.

The SUNSHINE FUN pocket seems to be a “fastener,” but it is not clear whether it is “attached” to the control unit as in claim 2. According to WEBSTER'S, to attach is to “make fast (as by tying or gluing).” WEBSTER'S at 113 def. 4. A person does not ordinarily think of a pocket as being “attached” or made fast to the contents of the pocket. That is, a pocket may be attached to a garment, and the pocket may be a fastener that attaches its contents to the garment, but the pocket itself is not attached to its contents. On the other hand, the

specification suggests that the most important aspect of the fastener is that it allow easy removability. The prosecution history also emphasizes removability. (Pls.' Ex. 2 at 74-76.)

In view of the specification and prosecution history, I could probably stretch claim 2 far enough to read on a pocket. But since a court should not stretch the language of a claim in order to find it invalid, I will refrain from finding that claim 2 reads on the pockets in the Savarese shirt and SUNSHINE FUN.

In contrast, I find that the fastener in claim 9 does read on a pocket. The pocket is plainly a soft-sided case, and the thread or glue described in SUNSHINE FUN is plainly a fastener. Thus, claim 9 reads on a pocket glued to a garment.

In summary, I find that both claim 12 and claim 1 read on minilights taped to a garment, but neither reads on minilights glued to a garment. In addition, I find that Type A minilights have a control/power unit that is "substantially flat in profile," and that claim 9 reads on inside pockets but claim 2 does not.

#### *D. Anticipation*

\*14 Having reviewed the prior art and construed the claims, the next task is to place the claims side-by-side with the prior art and ascertain which claims were anticipated. Prior art anticipates an invention when "the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States...." 35 U.S.C. § 102(b).

An invention has been "described in a printed publication" if a tangible, enabling form of the invention has been made available to the public. *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560 (Fed.Cir.), cert. denied, 488 U.S. 892 (1988). An article is "on sale" within the meaning of section 102(b) if even a single article is offered or sold more than one year before the date of application, here August 1, 1991. *In re Caveney*, 761 F.2d 671,

675-76 (FedCir.1985); *Intel. Corp. v. Int'l Trade Comm'n*, 946 F.2d 821, 829-30 (Fed.Cir.1991). An article is "in public use" if there has been "any non-secret use of a completed and operative invention in its natural and intended way open to the public or where any member of the public can see it if such a member so desires." FN14 1 PETER D. ROSENBERG, PATENT LAW FUNDAMENTALS § 7.07[1] (1993 rev.).

Once a court has identified the prior art that was in public use or on sale, a court must compare that prior art to the claimed invention. "[A]nticipation requires that each and every element of the claimed invention be disclosed in a prior art reference. In addition, the prior art reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public." *Akzo N.V. v. U.S. Int'l Trade Comm'n*, 808 F.2d 1471 (FedCir.1986), cert. denied, 482 U.S. 909 (1987).

In the present case, the critical date for determining public use or sale is August 1, 1990, one year before the filing date. As discussed above, the parties have established by clear and convincing evidence the nature of a substantial amount of the prior art that was on sale and in use at that time.

Claim 1 and the dependent claims 2-11 all require a minilight kit with securement elements, an electronic control unit, and flexible wires independently wiring the minilights to the control unit. The prior art includes three types of shirt-minilight assemblies having minilight kits with independent wiring, an electronic control unit, and securement to a garment: the O-ring shirts, the Oberbeck glued shirts, and the Savarese taped shirts. FN15

The first of these, the O-ring shirts, appear to anticipate claim 1. However, the only evidence for these shirts are the unsubstantiated and sketchy descriptions in the Oberbeck and Savarese Declarations. I find that these descriptions do not provide clear and convincing evidence that O-ring securement elements were used in the prior art.

The second type of shirts, the Oberbeck glued shirts, are not within claim 1 as discussed above.

Claim 1's securement elements do not read on glue.

\***15** The third type of shirt, the Savarese taped-shirt, anticipates claim 1. In addition to the shirts themselves, SUNSHINE FUN anticipates claim 1 by providing an enabling disclosure of these shirts, including each of the elements of claim 1: a reference to Flora-Lites with their minilights attached by flexible and independent wiring to an electronic control unit, and a reference to securement elements (pieces of tape).

However, it is not clear from the record when Ms. Savarese first displayed her shirt to the public. *See supra* note 4. Since Plaintiffs must prove their case by clear and convincing evidence, I find that the Savarese shirt is not prior art.

In contrast, the record contains clear and convincing evidence that the SUNSHINE FUN publication was available to the public prior to August 1, 1990. The record does not actually disclose the date on which SUNSHINE FUN became available, only that it was published in February of 1990. However, Defendant has asked for reexamination of claim 12 based on the SUNSHINE FUN February 1990 publication date. (Pls.' Ex. 26 at 32.) In its reexamination request, Defendant admitted to the PTO that "the Sunshine Fun reference qualifies as a prior art reference under both Sections 102(a) and 102(b)." FN16 *Id.* Defendant does not now contest this issue and, accordingly, I find that Defendant's acceptance of SUNSHINE FUN as prior art for the purposes of reexamination constitutes clear and convincing evidence here.

Accordingly, I find that SUNSHINE FUN is a printed publication that anticipates claim 1.

Claim 2 differs from claim 1 only in that it contains a fastener for the control unit. SUNSHINE FUN does not disclose a fastener within the meaning of claim 2, since SUNSHINE FUN discloses only a pocket.

Claim 3 differs from claim 1 only in that it contains an actuation switch. All of the Flora-Lite minilight kits contain actuation switches, and hence SUN-

SHINE FUN anticipates claim 3.

Claims 4 and 5 require a multiposition actuation switch, with a "plurality of different actuating modes." These claims do not read on the Flora-Lite kits of record, since these only have simple on-off switches.

Claim 6 requires wires of substantially equal length. All of the Flora-Lite kits of record contain such wires, and hence SUNSHINE FUN anticipates claim 6.

Claim 7 requires a flasher unit. Flora-Lite kits contained flasher units prior to August 1, 1990, and hence SUNSHINE FUN anticipates claim 7.

Claim 8 requires LEDs and a power supply. Flora-Lite kits contained LEDs and power supplies prior to August 1, 1990, and hence SUNSHINE FUN anticipates claim 8.

Claim 9 requires a battery mounted on the control unit, with the control unit housed in a soft-sided case attached to the garment by a fastener. Although this claim may require that the control/power unit be removable, it does not require that the soft case be removable. Accordingly, I find that SUNSHINE FUN anticipates claim 9. Flora-Lite kits contained control units prior to August 1, 1990, and the pocket described in SUNSHINE FUN is a soft-sided case attached to the garment with a fastener (glue or thread).

\***16** Claim 10 requires a battery mounted on a flat control unit, with the control unit plus battery plus case apparatus presenting a flat profile. The circuit board on Type B minilights is 2 3/16 inches long by 1 inch wide by 1/4 inch deep, giving a four-to-one ratio of width to depth. Accordingly, I find that Type B minilights have substantially flat circuit boards. However, it is not altogether clear that a pocket containing a Type B or C minilight would present a "substantially flat profile." *See supra* note 13 and the accompanying text.

Claim 11 requires O-rings. SUNSHINE FUN does not disclose O-rings.

Claim 12 is a broad claim, requiring only removably mounted minilights, a central control unit, and independent wiring. SUNSHINE FUN anticipates this claim.

In summary, I find that SUNSHINE FUN anticipates claims 1, 3, 6-9, and 12. The O-ring shirts and the Savarese shirt are not prior art because Plaintiffs have not established the dates of their public use or sale by clear and convincing evidence. The Oberbeck shirt does not anticipate the claims because neither of the independent claims, claims 1 and 12, reads on glue as a securement element.

#### D. Obviousness

The final inquiry is whether the prior art renders any of the claims in the '325 patent obvious. The requirement that a patent be nonobvious is codified in section 103 of Title 35:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made....

35 U.S.C. § 103.

The question of obviousness is one of law. *Graham v. John Deere*, 383 U.S. 1, 17 (1966). However, it is a question of law rooted in four factual inquiries: "the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of ordinary skill at the time the invention was made, and any objective considerations that may be present." *Continental Can Co. U.S.A., Inc. v. Monsanto Co.*, 948 F.2d 1264, 1270 (Fed.Cir.1991).

In the present case, the "scope and content" of the prior art is undisputed. It includes the Oberbeck glued shirts, the SUNSHINE FUN manual, the Types A-C minilights, and the Miller, Shenker, and

Beard patents.

Defendant's "objective considerations," such as copying and commercial success, will be accepted as true for the purposes of this motion. To the degree that these objective considerations have a nexus with the merits of the invention, they are probative on the issue of obviousness. *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 719 (Fed.Cir.1991). However, objective considerations are not necessarily determinative. An invention may be obvious even if it enjoys immediate commercial success. *Newell Co., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed.Cir.1988), cert. denied, 493 U.S. 814 (1989) (upholding the trial court's J.N.O.V. ruling that the claims were obvious).

\*17 The only other factual issue is the level of ordinary skill in the art at the time the invention was made. Relevant factors include "the educational level of the inventor, educational level of those who work in the industry ..., and the sophistication of technology involved," *Ryko*, 950 F.2d at 719; whether the prior art "fairly suggested the desirability" of the claimed invention, *Continental Can*, 948 F.2d at 1270; and the nature of the problems and their prior solutions. 2 PATENT LAW FUNDAMENTALS § 9.02; see also *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051 (Fed.Cir.), cert. denied, 488 U.S. 825 (1988).

The present case does not involve sophisticated technology. The unanticipated claims are novel because they contain the following low-tech features: an unspecified fastener attached to the control unit (claims 2, 9, 10); an unspecified multi-position switch (claims 4-5); a flattened case (claim 10); and O-rings (claim 11). In addition, Defendant asserts that claims 1-11 are unanticipated because they contain unspecified "securement elements" absent from the Types A-C minilights, and that the Types A-C battery packs are bulkier than that described in claim 10.

The record does not show the educational level of Mr. Eisenbraun, or whether he had special skills that transcended the ordinary skills of the art. Given

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the low-tech nature of the patent, perhaps it is not surprising that the record contains little direct evidence of the qualifications of Mr. Eisenbraun. However, the record does contain considerable evidence of the ordinary skill in the art.

The relevant art, as described above, is the design and implementation of minilight kits suitable for attachment to apparel. Ms. Savarese is an example of one who practiced this art at the time that Eisenbraun invented his minilight kit. She visited industry shows, displayed her products, read industry literature, corresponded with her East Asian suppliers, and sought and adopted innovations such as twinkling minilights and LEDs. She was also aware of the desirability of attaching the minilights removably, and did so using tape and a pocket for the control unit, as described in SUNSHINE FUN. In other words, Ms. Savarese was a person of moderate sophistication who kept abreast of developments in minilight manufacture and use.

Unlike Ms. Savarese, Ms. Oberbeck was not a participant in the minilight industry. However, Ms. Oberbeck did sell shirt-minilight assemblages, and a person with ordinary skill in the area of designing and manufacturing minilight assemblages would have been aware of such assemblages. Ms. Oberbeck initially attached her minilights with glue, but she too was aware of the desirability of attaching minilights removably. Accordingly, she switched to using a removable velour insert and, at least according to her declaration, velcro. These techniques and ideas were all part of the ordinary skill in the art.

The ordinary skill in the art also included certain of the teachings of the Shenker, Miller, and Beard patents, since each of these taught minilight assemblages for use on apparel. Perhaps the ordinary skill in the art did not include all possible applications of these patents, but the ordinary skill at least included the applications expressly taught by the patents themselves. Among other things, these patents taught various kinds of flasher circuits, various shapes of circuit boards and control/power units, and various methods of attachment including velcro

and O-rings. In addition, the Miller and Beard patents show that practitioners of the art had at least basic familiarity with circuit design.

\*18 In sum, I find that the ordinary skill in the art included the direct teachings of the Miller and Shenker patents, the sorts of assemblage techniques used by Ms. Oberbeck and described in the SUNSHINE FUN manual, and at least basic familiarity with electronic circuitry.

The record also contains objective evidence of nonobviousness, in particular the evidence of direct copying, the evidence of a long-felt need for securement elements, and the evidence that Defendant's new-style kits achieved immediate commercial success. For the purposes of this motion for summary judgment, I must weigh this evidence and draw inferences from it "in the light most favorable to the party opposing the motion." *Whitehead*, 729 F.2d at 251 (quoting *Coastal States Gas Corp. v. Department of Energy*, 644 F.2d 969, 979 (3d Cir.1981)); *Wahl*, 624 F.2d at 1181.

Defendant first points to Plaintiffs' direct copying as evidence of nonobviousness. If Defendant's invention was obvious, why did Plaintiff follow in Defendant's footsteps rather than lead the way? To analyze this question, it is necessary to compare Plaintiffs' alleged copies with Defendant's original. (See Eisenbraun Decl., Exs. A, G, H.) Plaintiffs' copies resemble Defendant's original in that both have ten blinking minilights, both have a two-position (on/off) switch, both have similarly-shaped control/power units, both have LEDs, both have flexible wires about 10 inches long, and both have O-rings. Of these features, Type C minilights anticipated all but the O-rings, the 10-inch wires (Type C had 20-inch wires), and the shape of the control/power unit.

Defendant next points to the commercial success of Lightables. Defendant sold 10,000 units of old-style minilights in 1989, and 64,000 units in 1990. However, after Defendant introduced Lightables in early 1991, the old-style sales declined to 21,000 in that year and to 10,000 in 1992, whereas sales of

Lightables burgeoned to 176,000 units in 1991 and 663,000 in 1992. Defendant also notes that Plaintiffs appear to be doing passably well with their new-style copies.

Defendant attributes the success of new-style minilights to their flat, light control/power units made possible by their small batteries; to their short, flexible wires; to their use of LEDs instead of incandescent bulbs; and to the ease of mounting the minilights on garments. However, Types C minilights had flexible wires as short as twenty inches, Type C minilights used LEDs, and Type C minilights could easily be mounted on garments using tape. Thus, Defendant must argue that the combination of shorter wires, lighter control/power units, and O-rings is responsible for much of the success of the new-style minilights.

Finally, the record holds at least some evidence that there was a long-felt need for convenient, removable securement elements for the minilights. The industry had apparently not yet settled on a single method of attachment—glue, tape, O-rings, velcro, flanges, and other adhesives had all been described or in use. However, the record holds no evidence, other than Plaintiffs' alleged copying, that O-rings satisfy that long-felt need. Indeed, the Shenker patent suggests that *any* independent securement element, O-ring or otherwise, is inferior to the securement element described therein.

**\*19** Considering all of this evidence together, I find that each of Defendant's claimed innovations was obvious, and each combination including these innovations was obvious.

To begin with, claim 1 would have been obvious even if "securement element" did not read on tape. Claim 1 is simply a Flora-Lite minilight with a securement element. The need for some sort of securement was obvious, as shown by the prior use of tape, glue, O-rings (Shenker patent), flanges (Shenker patent), velcro (Miller patent), and "adhesive" (Miller patent). That two of the above list attach to each individual minilight (or the wire at its base) indicates that individualized securement

elements were obvious. That the Shenker patent discloses a securement element exactly fitting Defendant's preferred embodiment, used in exactly the same way, indicates that even Defendant's restrictive construction of claim 1 was obvious.

Claim 2 is just claim 1 with a fastener attached to the control unit. Many well-known fasteners have the property that they attach to the thing to be fastened. One such fastener is, of course, velcro, a material hardly new to the clothing accessory business. In addition, it appears that velcro has already been used for various attachment purposes in the minilight industry (Oberbeck shirts, Miller patent). Thus, I find that claim 2 was obvious.

Claim 3 is obvious because it is just claim 1 with an on-off switch, like that in the Flora-Lites.

Claim 4 is just claim 1 with a multiposition actuation switch mounted to the control unit. A multiposition switch was an unsophisticated concept, and would have been obvious to anyone who recognized that different flashing modes were desirable. As shown by the Miller and Beard patents and by Types B and C minilights, the desirability of various flashing modes was common knowledge. Given the desirability of various flashing modes, the desirability of putting several in a single unit would have been obvious. And if it was obvious to put several modes in a single unit, it would have been obvious to select the modes using a multiposition switch.

Claim 5 is just claim 1 with a twinkle and a constant-illumination position. This claim is obvious for the same reasons as claim 4.

Claim 6 is just claim 1 with equal-length wires, and is obvious because claim 1 is obvious and because the prior art had equal-length wires (Types A-C).

Claim 7 is just claim 1 with a flasher, and is obvious because claim 1 is obvious and because the prior art had flashers (Types B and C, Miller and Beard patents).

Claim 8 is just claim 1 with LEDs and a power sup-

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ply, and is obvious because claim 1 is obvious and because the prior art had LEDs and power supplies (Type C, Shenker and Beard patents).

Claim 9 is just claim 1 with LEDs, a battery pack, and a control unit housed in a soft-sided case with a fastener to attach it to the garment. LEDs and battery packs were obvious and well-known in the industry. Even if the SUNSHINE FUN pocket is not a soft-sided case, a fabric case would have been an obvious innovation to those manufacturing or selling devices for the garment industry. Fasteners are obvious for the reasons given in claim 2.

**\*20** Claim 10 is just claim 9 with a battery mounted on a circuit board to give a control/power unit with a “substantially flat profile.” A flat control/power unit was obvious, as shown by Flora-Lite’s Type A flat control/power unit and by the Miller patent’s flat power supply. Furthermore, the advantages of an unobtrusive control unit would have been apparent to anyone concerned with producing accessories for clothing. To the degree that Lightables improve on the prior art with regard to unobtrusiveness, they do so only because they employ smaller batteries, and not because flatness is nonobvious.

Claim 11 is the most difficult. Securement elements are clearly desirable, and the record lacks clear and convincing evidence that O-rings were in public use or on sale. Nonetheless, I find that O-rings were obvious. O-rings are well-known items and, more importantly, the Shenker patent disclosed O-rings used exactly as described in claim 11. I find that, in light of the Shenker patent, using O-rings as securement elements is obvious.

Claim 12, the broadest claim, is obvious for the same reasons that the narrower claims are obvious.

In sum, the record holds sufficient evidence to conclude that the '325 patent is invalid for obviousness. The objective evidence of copying, commercial success, and long-felt need does not alter this conclusion. To begin with, evidence of copying is not conclusive proof of nonobviousness-a person can copy an obvious feature just as easily as a nonobvious one. Copying is especially inconclusive where,

as here, external forces dictate the nature of the copied features. For example, the size of the batteries and the need for inconspicuousness dictate the size and shape of the control/power unit. The least conspicuous shape, given the realities of printed circuit boards and batteries, is one that will lie flat against a shirt without producing conspicuous bulges.

Similarly, commercial success is not conclusive evidence of nonobviousness. Even if I assume that the commercial success of Lightables was wholly due to their novel combinations of features, I find that the record holds clear and convincing evidence that these combinations were obvious. However, on the present record, it is far from certain that Lightables’ commercial success is wholly due to their novel combination of features.<sup>FN17</sup> Moreover, the evidence of long-felt need for securement devices, and possible satisfaction of that need by O-rings, does not outweigh the Shenker patent’s clear teachings on O-ring securement elements.

Although the objective evidence in the present case is not insubstantial, it cannot negate the evidence of the prior art and the ordinary skill in that art. In this regard, the present case resembles *Newell*, where the court held that “although the record shows a highly successful product, the record also establishes such a strong case of obviousness based on admissions and the teachings of the prior art ... that the objective evidence of nonobviousness does not persuade us to reach a contrary conclusion.” 864 F.2d at 769; *see also EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed.Cir.), cert. denied, 474 U.S. 843 (1985) (finding obviousness despite a showing of commercial success). Plaintiffs have presented clear and convincing evidence of obviousness, and Defendants have failed to demonstrate any material issues of fact.

**\*21** Consequently, I find that all of the claims of the '325 patent were obvious despite the objective evidence offered by Defendant. Of course, the patent examiner reached a different result. But the patent examiner had no opportunity to consider SUNSHINE FUN, the Savarese shirt, Oberbeck shirts,

Types A-C minilights, or any of Plaintiffs' other exhibits of record. Had the examiner been shown the evidence now before me, I am confident that he never would have issued the '325 patent.

#### IV. CONCLUSIONS

Plaintiffs' motion for partial summary judgment is granted, and Defendant's request for a stay is denied. I find that each claim of the '325 patent is invalid. Claims 1, 3, 6-9, and 12 are invalid because they were anticipated, and all of the claims are invalid because they were obvious. An appropriate order shall issue.

- FN1. 1. A light illuminating kit for use with an article of clothing having a plurality of apertures formed therein by a user of said kit, said apertures forming a pattern preselected by said user, said kit comprising:
  - a plurality of light emitting elements constructed to protrude through respective apertures in said article of clothing;
  - a plurality of securement elements for securing said light elements to said article of clothing;
  - a central electronic control unit for controlling the actuation of each of said light elements;
  - a plurality of flexible wire pairs, each of a predetermined length and each independently wiring only one of said light elements to said central electronic control unit such that said one light element may be moved independently of one of any other of said plurality of light elements such that said any one light element is interchangeably insertable through any one of said plurality of apertures to illuminate said user preselected pattern when said plurality of light elements is actuated.
- 2. An illuminating light element kit as defined in claim 1 wherein said control unit has a fastener attached thereto for securing said control unit to an inside surface of said article of clothing.

- 3. An illuminating light element kit as defined in claim 1 further comprising an actuation switch operably mounted to said control unit for actuating and deactuating said control unit and said light emitting elements.
- 4. An illuminating light element kit as defined in claim 3 wherein said switch is a multi-position switch for actuating said control unit in a selected one of a plurality of different actuating modes.
- 5. An illuminating light element kit as defined in claim 4 wherein one of said plurality of actuating modes flashes various ones of said plurality of light emitting elements on at different times and another of said plurality of actuating modes maintains said light emitting elements constantly on.
- 6. An illuminating light element kit as defined in claim 1 wherein the preselected length of each of said flexible wire pairs is substantially equal.
- 7. An illuminating light element kit as defined in claim 1 wherein said control unit flashes said plurality of light emitting elements on and off at periodic time intervals.
- 8. An illuminating light element kit as defined in claim 1 wherein said light emitting elements are light emitting diodes; and said kit further comprises a power supply mounted to said control unit and in electrical communication therewith.
- 9. An illuminating light element kit as defined in claim 8 wherein said power supply includes at least one removable battery, said control unit being receivable in a soft-sided case, said case having a fastener attached thereto for securing said case to an inside surface of said article of clothing.
- 10. An illuminating light element kit as defined in claim 9 wherein said control unit further includes a substantially flat circuit board, said at least one battery being mounted thereto such that when said con-

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trol unit is inserted into said case, said case presents a substantially flat profile.

11. The kit of claim 1 wherein each of said plurality of securement elements compresses a resilient O-ring configured to retain a portion of one of said light emitting elements therein.

12. A devise for forming a plurality of illumination patterns on an outer surface of a piece of flexible sheet material, said device comprising:

a plurality of light emitting elements configured to be removably mountable on said surface;

a central control unit for controlling the actuation of each of said plurality of light elements;

a plurality of flexible wire pairs, each of a fixed length and each independently wiring only one of said plurality of light elements to said central control units such that said one light element may be moved independently of one of any other of said plurality of light elements such that said plurality of light elements may be arranged on said surface to form any of said plurality of patterns.

FN2. The patent examiner found that the Miller patent also disclosed a multi-position switch. (Pls.' Ex. 2 at 56.) In fact, the Miller patent does not seem to disclose such a switch. The examiner may have concluded that the patent disclosed such a switch from the language "a timing circuit can be included whereby the light emitting devices will be illuminated intermittently or continuously for a predetermined amount of time following energization by the switch 26." (Pls.' Ex. 3 at col. 3, lines 43-46.) What this language seems to mean is that a timing circuit can be used in conjunction with either a device with a blinking circuit or a device with a continuous circuit, but not that a single device will have both types of circuits selectable by a multiposition switch.

FN3. The various documents in Plaintiffs' exhibits refer to the lights by their part numbers, as summarized in the following list. For the purposes of this list, the following conventions are used: the type of minilight (LED or incandescent) is given if known, but otherwise the lights are simply called "lights;" the type of illumination (twinkle or steady) is given if known; and in general, "D" signifies multicolored lights, "T" signifies twinkling lights, "W" signifies white wires, and "G" signifies green wires. (Savarese Decl. at ¶ 13.) # 002 = ten white lights, each attached to the power and control unit by its own 20-inch white wires; # 002-D = ten multi-color incandescent lamps attached by 20-inch green wires to a steady controller; # 002-DT = ten multicolor LEDs attached by 20-inch wires to a twinkle controller; # 002-TG = ten white incandescent lamps attached by 20-inch green wires to a twinkle controller; # 003 seven white lights attached by twelve-inch white wires; # 003-G seven white incandescent lamps attached by twelve-inch green wires to a steady controller; # 004 = ten white incandescent lamps attached by thirty-six-inch green wires to a steady controller; # 006 = six white incandescent lamps attached by six-inch white or green wires. (Savarese Decl. at ¶ 9; Kamins Decl. at ¶ 4.)

FN4. In her declaration, Ms. Savarese states that "[s]ince the time it was made [April/May 1990], I used this lighted Christmas teddy bear shirt at trade and craft shows in the United States and otherwise to promote Flora-Lite mini-light kits." (Savarese Decl. at ¶ 26.) As discussed *infra*, Plaintiffs must establish by clear and convincing evidence that the prior art was in public use or on sale before August 1, 1990. The above statement does not establish by clear and convincing evidence that Ms. Savarese displayed her sweatshirt prior to August 1, 1990.

FN5. *See supra* note 2.

FN6. Section 282 of Title 35 states that:  
A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.

FN7. In theory, the summary judgment standard in a case seeking to declare a patent invalid differs from that in an ordinary civil case because of the different evidentiary standards. Thus, in an ordinary civil case, summary judgment is appropriate unless “the record taken as a whole could not lead a rational trier of fact to find for the non-moving party” by a preponderance of the evidence. In a patent case, summary judgment is appropriate unless “the record taken as a whole could not lead a rational trier of fact to find for the non-moving party” by clear and convincing evidence. As a practical matter, however, summary judgment standards do not change with the underlying evidentiary standard. Courts generally deny a motion for summary judgment if any material disputed facts appear in the record, regardless of the evidentiary weight of those facts. This is the case here. I have had no need to weigh the facts because the parties do not dispute the facts on which I have relied.

FN8. Defendant also argues that “[w]hen a claim is in dispute, it is necessary to inquire into extrinsic evidence, including the specification, the prosecution history and the claims, all of which reveal underlying factual disputes which preclude summary judgement.” (Def.’s Opp’g Br. at 14.) In

support of this argument, Defendant cites *Tillotson, Ltd. v. Walbro Corp.*, 831 F.2d 1033 (Fed.Cir.1987). In *Tillotson*, the Federal Circuit vacated the district court’s claim interpretation on motion for summary judgment. In particular, the Federal Circuit stated that expert testimony was necessary to understand the disputed interpretations of the prior art and prosecution history. Here, there appear to be no disputed interpretations of the prior art relied upon herein or the prosecution history. The only dispute is whether the claims read on the prior art.

FN9. The publication SUNSHINE FUN comments that “[t]he electric Lite Set has to be removed to wash the shirt and the masking tape can easily be pulled off.”

FN10. Although glued minilight might infringe the ’325 patent, anticipation is assessed by a stricter standard than infringement. A product anticipates an patented invention only if the product possesses every feature of the invention, whereas a product can infringe a patent as long as it possesses features equivalent to those of the invention. *Lewmar Marine*, 827 F.2d at 747-48.

FN11. For example, a long thin cylinder could not be considered flat. But a cross-section along the cylinder’s long axis would display a flat rectangular profile, with the length much greater than the width. Thus, a long thin cylinder would be flat in profile without being flat in actuality.

FN12. The prosecution history shows that, as originally drafted, claim 10 called for a “substantially flat” case. Defendant changed this language in its initial amendments to “a substantially flat profile” without explanation.

FN13. The Types B and C minilight have a somewhat boxier control/power unit be-

cause of their twinkle chip. Type B minilights are the boxiest, at 2 3/16 inches long, 1 1/4 inches wide, and 7/8 inches in height. Type C minilights are 2 3/16 inches long, 1 3/16 inches wide, and 3/4 inches in height.

FN14. Demonstration of an invention at a trade show or convention is a public use, even if the invention is not offered for sale for several years thereafter. *Electro-Nucleonics, Inc. v. Mossinghoff*, 593 F.Supp. 125, 127 (D.D.C.1984); *Faulkner v. Baldwin Piano & Organ Co.*, 561 F.2d 677, 683-84 (7th Cir.1977), cert. denied, 435 U.S. 905 (1978). Furthermore, as quoted above, the invention need only be used "in its natural and intended way." That is, as long as the public use is natural, it need not disclose all the elements of every claim. *Hall v. Macneale*, 107 U.S. 90, 97 (1882) (mechanism for safes exhibited at fairs and sold was "in use" even though it was invisible without dismantling the safe); *Egbert v. Lippmann*, 104 U.S. 333, 336 (1881) (corset springs were in public use even though invisible, where inventor had given two corsets away without restriction on their use); *In re Blaisdell*, 242 F.2d 779 (C.C.P.A.1957) (shims put in automobiles on experimental basis were in public use because of their continued and unrestricted use after the end of the experiment).

FN15. The Types A-C minilights cannot qualify alone, because they contain neither securement elements nor fasteners.

FN16. In its initial application for reexamination, Defendant stated that "Requestor is not sure whether [SUNSHINE FUN] was published prior to August 1, 1990, but assumes for purposes of this Request that it was." (Pls.' Ex. 26 at 6.) Defendant apparently learned later that the publication date was actually in February of 1990.

FN17. The record contains no evidence, other than Mr. Eisenbraun's assertions, that there is any nexus between the claimed innovations and Lightables' commercial success. It may be that there are other explanations for Lightables' success. For example, Lightables may have succeeded not because they improved on the prior art, but because they improved on Defendant's old-style minilights. Lightables differed from Defendant's old-style minilights in several ways, most notably in their easy adaptation to different patterns. In this regard, Defendant's old-style minilights were quite backward, since the prior art had known freely-positionable minilights for some time. Thus, the jump in sales of Defendant's new-style minilights may have been due to the inferiority of Defendant's old-style minilights.

Interestingly, the sales of Flora-Lite's and Darice's alleged copies do not appear to have increased as dramatically as the sales of Lightables. If Flora-Lite and Darice were already selling products comparable to Lightables, then their more-modest sales increase is understandable.

D.N.J. 1993

American Ceramicraft, Inc. v. Eisenbraun Reiss Inc.

Not Reported in F.Supp., 1993 WL 498863 (D.N.J.), 28 U.S.P.Q.2d 1241

END OF DOCUMENT

**Excerpts from the:**

**May 19, 2006**  
**30(b)(6) Deposition of**  
**Christopher Schmandt**

Christopher Schmandt - May 19, 2006

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Volume: I

Pages : 1 - 140

Exhibits: 90 - 96

UNITED STATES DISTRICT COURT

DISTRICT OF MASSACHUSETTS

CIVIL ACTION NO. 05-10990-DPW

-----  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY,

Plaintiff,

v.

HARMAN INTERNATIONAL INDUSTRIES INCORPORATED,

Defendant.

-----  
CONFIDENTIAL

VIDEOTAPED 30(b) (6) DEPOSITION OF M.I.T.

through CHRISTOPHER SCHMANDT

Friday, May 19, 2006, 2006, 9:40 a.m.

Proskauer Rose LLP

One International Place

Boston, Massachusetts

Reporter: Rosemary F. Grogan, CSR, RPR

LegaLink Boston, a Merrill Company

Christopher Schmandt - May 19, 2006

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1 APPEARANCES:

2 Representing the Plaintiff:

3 PROSKAUER ROSE LLP

4 One International Place

5 Boston, MA 02110

6 (617) 526-9700

7 kmottley@proskauer.com

8 BY: KIMBERLY A. MOTTLEY, ESQUIRE

9

10 Representing the Defendant:

11 KIRKLAND & ELLIS LLP

12 200 East Randolph Drive

13 Chicago, IL 60601

14 (312) 861-2105

15 cleavell@kirkland.com

16 BY: CRAIG D. LEAVELL, ESQUIRE

17

18 Also present:

19 Jason Moschella, Videographer

20

21

22

23

24

Christopher Schmandt - May 19, 2006

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09:34:12 1                   THE VIDEOGRAPHER: This is the beginning of  
09:39:44 2                   videocassette No. 1 in the deposition of the  
09:39:47 3                   Massachusetts Institute of Technology by and  
09:39:50 4                   through Christopher Schmandt in the matter of  
09:39:53 5                   M.I.T., plaintiff, versus Harman International  
09:39:56 6                   Industries Incorporated, defendant, in the United  
09:40:00 7                   States District Court, District of Massachusetts,  
09:40:04 8                   Civil Action No. 05-10990-DPW.

09:40:11 9                   Today is May 19, 2006. The time is 9:40 a.m.  
09:40:15 10                  My name is Jason Moschella. I'm a certified legal  
09:40:20 11                  video specialist and a notary public contracted by  
09:40:23 12                  LegalLink Boston. This deposition is taking place  
09:40:26 13                  today at the offices of Proskauer Rose LLP, One  
09:40:30 14                  International Place, Boston, Massachusetts and was  
09:40:33 15                  noticed by Kirkland & Ellis.

09:40:35 16                  At this time counsel will please identify  
09:40:38 17                  yourselves and the court reporter will administer  
09:40:40 18                  the oath.

09:40:42 19                  MR. LEAVELL: This is Craig Leavell from  
09:40:42 20                  Kirkland & Ellis on behalf of Harman International.

09:40:44 21                  MS. MOTTLEY: This is Kimberly Mottley of  
09:40:46 22                  Proskauer Rose on behalf of M.I.T.

23

24

Christopher Schmandt - May 19, 2006

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09:40:48 1 CHRISTOPHER SCHMANDT, having been  
09:40:48 2 satisfactorily identified by the production of a  
09:40:48 3 driver's license, and duly sworn by the Notary Public,  
09:40:48 4 was examined and testified as follows:

09:40:48 5

09:40:48 6 EXAMINATION BY MR. LEAVELL:

09:40:49 7

09:40:59 8 Q. Good morning, sir.

09:41:01 9 A. Good morning.

09:41:02 10 MR. LEAVELL: I'm going to ask the court  
09:41:03 11 reporter to mark the next exhibit as Exhibit 90.

09:41:06 12 (Exhibit 90 Marked for Identification)

09:41:20 13 BY MR. LEAVELL:

09:41:25 14 Q. Mr. Schmandt, have you seen a copy of  
09:41:28 15 Exhibit 90 prior to today, which is the Notice of  
09:41:34 16 Harman's First Rule 30(b)(6) Deposition of MIT, for the  
09:41:38 17 record?

09:41:38 18 A. Yes, I have.

09:41:42 19 Q. And you've had a chance to consult with  
09:41:45 20 counsel for M.I.T. about the scope of today's  
09:41:47 21 deposition; is that correct?

09:41:48 22 A. Yes, I have.

09:41:51 23 MS. MOTTELEY: I can represent for the record,  
09:41:52 24 Craig, that Mr. Schmandt is ready to testify on

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10:49:58 1 June of '89, include the subject matter of Claim 22 --  
10:50:04 2 MS. MOTTLEY: Same objections.  
10:50:05 3 BY MR. LEAVELL:  
10:50:05 4 Q. -- in the '685 patent?  
10:50:05 5 A. In Claim 22, no, it did not.  
10:50:09 6 Q. Did M.I.T. ever make a system that included  
10:50:11 7 the subject matter of Claim 22?  
10:50:13 8 MS. MOTTLEY: Same objections.  
10:50:22 9 A. Discussing Claim 22 only in the scope of a  
10:50:25 10 dependent claim from Claim 21, M.I.T. did not do that.  
10:50:29 11 Q. So M.I.T. never made a system that had -- that  
10:50:31 12 updated the map database by radio broadcast?  
10:50:33 13 A. Where the map --  
10:50:36 14 MS. MOTTLEY: Same objections.  
10:50:39 15 A. Where the map database was part of the system  
10:50:43 16 as described in Claim 1, M.I.T. did not do that. I'm  
10:50:50 17 putting it that way because M.I.T. almost certainly did  
10:50:53 18 other work updating databases using radio frequency  
10:50:57 19 networking protocols.  
10:50:59 20 Q. But not in the context of a vehicle navigation  
10:51:00 21 system?  
10:51:02 22 A. That's the context I'm placing it in; not in  
10:51:05 23 that context.  
10:51:18 24 Q. Did the Back Seat Driver, as it existed as a

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11:29:54 1 Assistance provided spoken instructions that classified  
11:29:57 2 the instructions into intersection types, correct?

11:30:02 3 MS. MOTTLEY: Same objections.

11:30:04 4 A. I don't have an answer on that. I'm not  
11:30:07 5 prepared today to talk about the Direction Assistance.

11:30:19 6 Q. Did M.I.T. ever make a navigation system that  
11:30:22 7 included the subject matter of Claim 50 of the '685  
11:30:27 8 patent?

11:30:28 9 MS. MOTTLEY: Same objections.

11:30:34 10 A. No, it did not.

11:31:05 11 Q. Did the Back Seat Driver that was an actual  
11:31:12 12 working prototype and that had successfully guided  
11:31:15 13 drivers unfamiliar with Cambridge to their designations  
11:31:18 14 prior to August 4th of 1989, did that system include the  
11:31:22 15 subject matter of Claim 51 of the '685 patent?

11:31:26 16 MS. MOTTLEY: Same objections.

11:31:35 17 A. Yes.

11:31:36 18 Q. And you know that because the thesis says so?

11:31:38 19 A. Yes.

11:31:40 20 Q. Did the Direction Assistance, as it existed as  
11:31:45 21 a working prototype in field trials in June of '89,  
11:31:49 22 include the subject matter of Claim 51?

11:31:52 23 MS. MOTTLEY: I objection. I think you said  
11:31:56 24 Direction Assistance.

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11:44:21 1 Q. Did M.I.T. ever make an actual system that  
11:44:24 2 used the subject matter of Claim 56?  
11:44:29 3 MS. MOTTELEY: Same objections.  
11:44:30 4 A. No.  
11:44:54 5 Q. The Back Seat Driver that was used prior to  
11:44:59 6 August 4th of 1989 and an actual working prototype that  
11:45:04 7 successfully guided drivers unfamiliar with Cambridge to  
11:45:07 8 their designations over public streets in Boston, that  
11:45:11 9 system at that time included the subject matters of  
11:45:15 10 Claims 57 and 58 of the '685 patent, correct?  
11:45:20 11 MS. MOTTELEY: Same objections, and compound.  
11:45:34 12 A. Yes.  
11:45:35 13 Q. Did the system that was used already in use  
11:45:42 14 and working in prototype form for field trials in June  
11:45:46 15 of '89, include the subject matters of Claims 57 and 58  
11:45:51 16 of the '685 patent?  
11:45:53 17 MS. MOTTELEY: Same objections.  
11:45:54 18 A. Yes.  
11:45:55 19 Q. And how do you know that?  
11:45:57 20 MS. MOTTELEY: Same objections.  
11:46:02 21 A. Because all versions of the system did that.  
11:46:33 22 THE VIDEOGRAPHER: Five minutes, counselor.  
11:46:35 23 MR. LEAVELL: Okay; let's take a short break.  
11:46:37 24 THE VIDEOGRAPHER: The time is 11:46 a.m.

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14:41:42 1 SIGNATURE / ERRATA SHEET

14:41:42 2 Re: M.I.T Vs. Harman International Industries

14:41:42 3 DEPOSITION OF: Christopher Schmandt 5/19/06

14:41:42 4 I, CHRISTOPHER SCHMANDT, do hereby certify

14:41:42 5 that I have read the foregoing transcript of my

14:41:42 6 testimony, and I further certify that said transcript it

14:41:42 7 is a true and accurate record of said testimony (with

14:41:42 8 the exception of the corrections that are noted below).

14:41:42 9	PAGE	LINE(S)	READS	SHOULD READ
14:41:42 10	<hr/>			
14:41:42 11	<hr/>			
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14:41:42 13	<hr/>			
14:41:42 14	<hr/>			
14:41:42 15	<hr/>			
14:41:42 16	<hr/>			
14:41:42 17	Signed under the pains and penalties of			
14:41:42 18	perjury this _____ day of _____, 2006.			
14:41:42 19	<hr/>			
14:41:42 20	CHRISTOPHER SCHMANDT	Date		
14:41:42 21	Subscribed and sworn to before me this _____ day			
14:41:42 22	of _____, 2006.			
14:41:42 23	<hr/>			
14:41:42 24	Notary Public	My Commission Expires:	<hr/>	